



# 2014 NEEDS AND ASSETS REPORT

COCONINO REGIONAL PARTNERSHIP COUNCIL



**FIRST THINGS FIRST**

*Ready for School. Set for Life.*

# **Coconino Regional Partnership Council**

## **2014**

### **Needs and Assets Report**

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Funded by the  
**First Things First Coconino Regional Partnership Council**

## Message from the Chair of the Coconino Regional Partnership Council

August 20, 2014

The past two years have been rewarding for the First Things First Coconino Regional Partnership Council, as we delivered on our mission to help young children in the Coconino region receive the quality education, healthcare and family support they need to arrive at school healthy and ready to succeed. During the past year, we have positively impacted the lives of many young children and their families across the region as we continue to advocate for and support early childhood opportunities.

Our strategic direction has been thoughtfully guided by the Needs and Assets reports, specifically created for the Coconino Region in 2010, 2012 and this new 2014 report. These Needs and Assets reports are vital to our continued work in building an integrated early childhood system for our young children in all of the Community Hubs across this mostly rural Northern Arizona region.

The Coconino Regional Council would like to thank our Needs and Assets vendor, the University of Arizona Norton School for their knowledge, expertise and careful analysis of the Coconino region. This newest Needs and Assets report will help guide our decisions as we move forward on behalf of all young children and their families within this geographically large and diverse region.

Thanks to our dedicated Council members, staff, grantees and community partners, First Things First is making a real difference in the lives of our youngest citizens and throughout the entire State.

Thank you for your continued support.

Sincerely,

A handwritten signature in cursive script that reads "Kevin Brown".

Kevin Brown, Chair

Coconino Regional Partnership Council

## Introductory Summary and Acknowledgments

The way in which children develop from infancy to well-functioning members of society will always be a critical subject matter. Understanding the processes of early childhood development is crucial to our ability to foster each child's optimal development and thus, in turn, is fundamental to all aspects of wellbeing of our communities, society and the State of Arizona.

This Needs and Assets Report for the Coconino Region provides a clear statistical analysis and helps us in understanding the needs, gaps and assets for young children and points to ways in which children and families can be supported. The needs young children and families face are outlined in the executive summary and documented in further detail in the full report.

The First Things First Coconino Regional Partnership Council recognizes the importance of investing in young children and empowering parents, grandparents, and caregivers to advocate for services and programs within the region. This report provides basic data points that will aid the Council's decisions and funding allocations; while building a true comprehensive statewide early childhood system.

### ***Acknowledgments:***

The First Things First Coconino Regional Partnership Council owes special gratitude to the agencies and key stakeholders who participated in numerous work sessions and community forums throughout the past two years. The success of First Things First has been due, in large measure, to the contributions of numerous individuals who gave their time, skill, support, knowledge and expertise.

To the current and past members of the Coconino Regional Partnership Council, your dedication, commitment and extreme passion has guided the work of making a difference in the lives of young children and families within this diverse region. Our continued work will only aid in the direction of building a true comprehensive early childhood system for the betterment of young children within the region and the entire State.

We also want to thank the Arizona Department of Economic Security and the Arizona Child Care Resource and Referral, the Arizona Department of Health Services and the Arizona State Immunization Information System, the Arizona Department of Education and School Districts across the State of Arizona, the American Community Survey, the Arizona Head Start Association, the Office of Head Start, and Head Start and Early Head Start Programs across the State of Arizona, and the Arizona Health Care Cost Containment System for their contribution of data for this report.

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## FIRST THINGS FIRST

*Ready for School. Set for Life.*

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## Executive Summary

The First Things First Coconino Regional Partnership Council supports the needs of young children and their families in the Coconino Region. The region includes most of Coconino County, minus the Navajo Nation and the Hualapai Reservation, plus Winslow, the Hopi Reservation, and the Kaibab Paiute Reservation. The Havasupai Reservation is also part of the region. According to the 2010 US Census, the population of the region was 124,163, of whom 9,723 were children under the age of six.

Because the region is so large, the council has identified six sub-regions, or hubs. The largest hub is the *Southern Hub*, which includes Flagstaff, Williams, Parks, Valle, Munds Park, and a few smaller places. The next largest is the *Winslow Hub*, which includes the city of Winslow. Most of the Winslow Hub lies in Navajo County, but is included in the Coconino Region because its residents come to Flagstaff for many services. The part of the region which lies north of the Grand Canyon is the *Northern Hub*. This hub includes Page, Fredonia, and the Kaibab Paiute Reservation. The *Hopi Hub* is the Hopi Reservation, which lies partly in Coconino County and partly in Navajo County. The *Grand Canyon Hub* includes Tusayan and Grand Canyon Village, on the south rim of the canyon. The sixth hub is the *Havasupai Hub*, whose residents live on the Havasupai Reservation in Havasu Canyon, adjacent to the Grand Canyon.

The number of children under six living in the Coconino Region increased by about 11 percent from 2000 to 2010. Population projections suggest that the number of young children will grow only a little over the next few years.

Although the majority of the region's young children live in or near Flagstaff, many children live in towns or rural areas farther away. About 80 percent of the children live with their parent or parents; almost all of the rest live with other relatives, such as grandparents, aunts, or uncles. About two-thirds of the children live in a household headed by a married couple, and the other third live in a household headed by an unmarried woman or an unmarried man.

More than a quarter (27%) of the young children in the Coconino Region are Hispanic, although only 14 percent of the adult population are Hispanic. This difference is even greater in the Northern Hub, where 38 percent of children, but only 6 percent of adults, are Hispanic. While an estimated 11 percent of the households in the region speak Spanish at home, most of these households have at least one member who is proficient in English.

About 30 percent of the children under six in the region are estimated to be living in poverty, which is slightly higher than the estimate for the state of Arizona as a whole (27%). The median income for all families in Coconino County is estimated to be about \$59,000 per year, which means that about half of all families in the county have incomes less than \$59,000 and the other half have incomes above that amount. (Data for the Coconino Region are not available.) Incomes tend to be higher in and around Flagstaff.

The unemployment rate in both Coconino County and Arizona was just under 8 percent in 2013. Because the rate in Flagstaff was about 5.5 percent, we can infer that unemployment is higher in the more rural parts of the region (except for the Grand Canyon Hub, which had low unemployment).

As of January 2012, there were nearly 4,000 children under six who were receiving Supplemental Nutrition Assistance Program (SNAP) benefits. This is about 40 percent of the region's children. Participation rates were somewhat higher in the Winslow, Northern, and Havasupai hubs. In contrast, relatively few of the region's children participate in the Temporary Assistance to Needy Families (TANF) program. In January 2012, only 155 children under six were receiving TANF benefits. The nutrition program for Women, Infants, and Children (WIC) had 1,738 children under five enrolled in January 2012, which is about 20 percent of the county's children. In the state as a whole, about 30 percent of all children under five participate in WIC. A school-aged child in a family of four whose annual income is less than about \$44,000 would be eligible for reduced-price or free lunch. Eligibility rates vary from 44 percent of students (of all ages) in the Flagstaff school district to 70 percent in the Grand Canyon school district.

Over the past few years (2009 to 2012), the educational attainment of mothers giving birth has been steadily increasing. The percent of new mothers who had less than a high school education decreased from 18 percent in 2009 to 13 percent in 2012. Similarly, the percent who had at least some education beyond high school increased from 50 to 53 percent, from 2009 to 2012.

Third-grade children in Arizona take Arizona's Instrument to Measure Standards (AIMS) tests in math and in reading. In both fields, the percentage of children who receive passing scores is slightly lower for Coconino County schools (64% in math and 69% in reading) than for the state as a whole (68% math and 75% reading). Within the county, the Grand Canyon and Page districts have lower passing rates in both fields, compared to the other districts. The Maine district has a relatively low passing rate for the math AIMS (38%) but is about average for the reading AIMS (69%).

According to the Child care Resource and Referral Guide, there are 47 child care centers, 15 registered family home care providers, and one registered individual provider of child care in the Coconino Region. In addition, an unknown number of unregistered family homes also provide child care, as do informal arrangements known as *kith and kin*. The median cost of child care in Coconino County is estimated to be \$30 per day for an infant and \$22 per day for an older preschool child (ages 3 to 5). Per year, these median costs are about \$7,500 for infants and \$5,500 for the 3 to 5 year olds.

One of the signature programs of First Things First is Quality First, which aims to increase the availability of high-quality child care for children under the age of six around the state. Currently, the Coconino Region has 23 Quality First sites, with at least one in each of the six hubs.

Each school district in the region has at least one preschool funded by Title I. These preschool programs aim to help children be ready to succeed in school.

There are four tribal Head Start centers in the Coconino Region, and nine non-tribal centers. In addition, there are four Early Head Start centers in the region. During the 2012-13 school year, 882 children were enrolled in the Head Start program and 65 were enrolled in Early Head Start.

To improve the quality of early education for the region's children, First Things First funds educational scholarships for child care professionals. Currently 12 professionals are getting advanced training, leading to Child Development Associate (CDA) or Associate of Arts (AA) degrees.

In Coconino County, there is an average of one primary provider of health care for every 619 residents, which is somewhat lower than the statewide ratio of one provider per 785 residents.

Over the past four years, the annual number of births in the Coconino FTF Region has declined from 1,755 in 2009 to 1,533 in 2012. It is unknown whether the decline will continue, or reverse itself as the statewide birthrate has done. Most of the expectant mothers in the region begin their prenatal care in the first trimester, as recommended, although the rates are higher in the Flagstaff area (84% to 88%) than in the outlying areas (71% to 80%). Most mothers (about 95%) have five or more prenatal visits during pregnancy. Nine percent of the babies born in the Coconino Region in 2012 weighed less than 5½ pounds, which exceeds the Healthy People 2020 target of 7.8 percent. Low birth weight is somewhat more common in the Flagstaff and Williams areas than in the rest of the region. Ten percent of the births in the region in 2012 were to teen-aged mothers, which is a smaller percentage than in 2009 (13%). In 2012, preterm births, under 37 weeks, accounted for about 10 percent of all births in the region. Just under 3 percent of the mothers who gave birth in 2012 reported smoking while pregnant. The regional smoking rate is lower than the statewide rate (4.2%), but higher than the Healthy People target of 1.4 percent.

Over the past few years, about 17 percent of the children under six in the Coconino Region were estimated to be uninsured, although this rate may decline because of Medicaid expansion and the Affordable Care Act.

Childhood obesity and overweight appear to be less prevalent in Coconino County than in the rest of the state, according to data from the WIC program. Among participating children (ages 2 to 5), 17 percent of Coconino County children are overweight or obese, compared to 31 percent statewide. Rates of breastfeeding, however, are slightly lower in the county (63%) than in the state (67%).

According to data from Child Protective Services (CPS), there were 819 child-welfare reports in Coconino County in the 12 months from April 2012 to March 2013. Approximately a quarter of these reports were judged to be "high risk." There were 35 children in the county removed from their homes during 2012, and 31 during 2013.

Although accurate local data are difficult to obtain, some children in the Coconino Region face challenges from mental health disorders, parents who abuse alcohol or other substances, parents who are incarcerated, domestic violence, food insecurity, and homelessness.

## Who are the families and children living in the Coconino Region?

### The Coconino Region

The Coconino Region is situated in north central Arizona. The green area in the map below (Figure 1) indicates the extent of the region. The Coconino First Things First Region is not identical to Coconino County. The major differences are that the region does not include the Navajo Nation on the east or the Hualapai Reservation on the west, but does include the entire Hopi Reservation (including the Navajo County part). The city of Winslow, which is in Navajo County, is also included in the Coconino Region.

First Things First Regional boundaries were established in 2007 according to the following guidelines:

- They should reflect the view of families in terms of where they access services
- They should coincide with existing boundaries or service areas of organizations providing early childhood services
- They maximize the ability to collaborate with service systems and local governments, and facilitate the ability to convene a Regional Partnership Council
- They allow for the collection of demographic and indicator data.

These guidelines were used to define the Coconino Region. In addition, First Things First also acknowledged the government-to-government relationship with federally-recognized tribes. Each Tribe with lands in Arizona was given the opportunity to participate within a First Things First designated region or elect to be designated as a separate region. The Havasupai Tribe, the Hopi Tribe, and the Kaibab Paiute Tribe have chosen to participate as part of the Coconino Region. This decision must be ratified every two years, and each of those tribes have opted to continue as part of the region, with the opportunity to be represented on the Regional Partnership Council.

### A note about data suppression

The UA Norton School is contractually required to follow the First Things First Data Dissemination and Suppression Guidelines:

- “For data related to **social service** and **early education** programming, all counts of **fewer than ten**, excluding counts of zero (i.e., all counts of one through nine) are suppressed. Examples of social service and early education programming include: number of children served in an early education or social service program (such as Quality First, TANF, family literacy, etc.)”
- “For data related to **health or developmental delay**, all counts of **fewer than twenty-five**, excluding counts of zero (i.e., all counts of one through twenty-four) are suppressed. Examples of health or developmental delay include: number of children receiving vision, hearing, or developmental delay screening; number of children who are overweight; etc.”

Throughout the report, suppressed counts will appear as either LT25 or LT10 in data tables, and percentages that could easily be converted to suppressed counts will appear as DS.

Please also note that some data, such as that from the American Community Survey, are estimates that may be less precise for smaller areas. In some tables, estimates may be missing, either because they were unavailable or because they were unreliable because of a small sample size.

Note: Population counts published in the Regional Needs and Assets reports may vary from those provided by First Things First. First Things First's population methodology is based on 2010 Census Blocks while the Norton School uses the 2010 Census Zip Code Tabulation Areas.

### **A note about American Indians and data from the Census and the ACS**

In this report we use two main sources of data to describe the demographic and socio-economic characteristics of families and children in the region: US Census 2010 and the American Community Survey. These data sources are important for the unique information they are able to provide about children and families across the United States, but both of them have acknowledged limitations for their use on tribal lands. Although the Census Bureau asserted that the 2010 Census count was quite accurate in general, they estimate that American Indians and Alaska Natives living on reservations were undercounted by 4.9 percent.<sup>1</sup>

In 2005, the Census Bureau began gathering socio-economic data with the American Community Survey (ACS). The ACS is an ongoing survey that is conducted by distributing questionnaires to a sample of households every month of every year. In this report, we use data which have been aggregated over five years, from 2008 through 2012.

According to the State of Indian Country Arizona Report<sup>2</sup> there are new challenges when using and interpreting ACS data from tribal communities and American Indians in general. There is no major outreach effort to familiarize the population with the survey (as it is the case with the decennial census), and the small sample sizes of the ACS makes it more likely that the survey may not accurately represent the characteristics of the population on a reservation. The State of Indian Country Arizona Report indicates that at the National level, in 2010 the ACS failed to account for 14% of the American Indian/Alaska Native population that was actually counted in the 2010 decennial census. In Arizona the undercount was smaller (4%), but according to the State of Indian Country Arizona report, the ACS may be particularly unreliable for the smaller reservations in the state.

While recognizing that estimates provided by ACS data may not be fully reliable, we have elected to include them in this report because they still are the most comprehensive publically-available data that can help begin to describe the families that First Things First serve.

In this report, all of the data about the Kaibab Paiute tribal area and the Havasupai tribal area have come from these and other publically-available sources, with the exception of Havasupai tribal enrollment data. No other data were collected from the tribes themselves. The Hopi chose not to have their publically-available data included in this report.

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<sup>1</sup> US Census Bureau. "Estimates of Undercount and Overcount in the 2010 Census" (May 22, 2012).

<sup>2</sup> Inter-Tribal Council of Arizona, Inc., ASU Office of the President on American Indian Initiatives, ASU Office of Public Affairs (2013). "The State of Indian Country Arizona" [Volume 1].



## General Population Trends

The Coconino Region covers 18 zip code areas plus the Hopi Reservation. These zip code areas (shown in Figure 2) are the ones that are primarily located in Coconino County, excluding the Navajo Nation and the Hualapai Reservation.

### *The six community hubs*

The Coconino Region is organized into six community hubs: Southern, Winslow, Northern, Hopi, Grand Canyon, and Havasupai. As much as possible, this report will present data for each hub individually.

The **Southern Hub** is the largest hub. It is defined as the set of eleven zip codes: 86001, 86004, 86011, 86015, 86016, 86017, 86018, 86020, 86024, 86038, and 86046. The Southern Hub contains the cities of Flagstaff and Williams, and the unincorporated places of Doney Park, Kachina Village, Parks, Mountaineer, Valle, Fort Valley, and Munds Park. (Incorporated cities and towns have precise boundaries and local municipal governments. Unincorporated places do not have well-defined boundaries or municipal governments. The names and locations of the unincorporated places as shown in our maps are those determined by the US Census Bureau.) The 86002 zip code is also assigned to the Coconino Region. This zip code is non-geographical and therefore does not appear in maps or tables in this report. This zip code is primarily used for Flagstaff post office boxes.

The **Winslow Hub** is zip code 86047. It has the city of Winslow and an unincorporated place called Winslow West. This area is included in the Coconino Region because its residents are likely to travel west to Flagstaff for many services.

North of the Grand Canyon, the **Northern Hub** has four zip codes (86022, 86036, 86040, and 86052). In the Northern Hub are the city of Page, the town of Fredonia, and the unincorporated places of Cane Beds, Kaibab, and Moccasin. The Kaibab Paiute Reservation lies in the Northern Hub. The 86022 zip code crosses the Coconino-Mohave border.

The **Hopi Hub** is defined as the Hopi Reservation. It has eight unincorporated places: First Mesa, Moenkopi, Second Mesa, Hotevilla-Bacavi, Shongopovi, Kykotsmovi Village, Keams Canyon, and Low Mountain. Data about the Hopi Hub are not included in this report, because permissions have not been granted from the Hopi Tribe.

The **Grand Canyon Hub** is zip code 86023. It contains the town of Tusayan and the unincorporated Grand Canyon Village. Tusayan, however, was unincorporated at the time of the 2010 US Census.

The smallest hub is the **Havasupai Hub**, defined as zip code 86435. It contains the Havasupai Reservation and includes the unincorporated place of Supai. A few Havasupai families live in Supai Camp, which is located near Grand Canyon Village.

In most of the tables in this report, the top row of data corresponds to the total Coconino Region. The next six rows present the data for each hub in the region. At the bottom of each table will be a row for the Coconino County data and a row for the state of Arizona data.

It is important to note that only publically-available data have been included for the Havasupai and Kaibab Paiute tribes, for which tribal approval was provided; tribally-specific data from tribal agencies are not included (with the exception of Havasupai tribal enrollment data). Tribal approvals were not available from the Hopi Tribe for this iteration of the report, and so no data are not included for that hub, as is noted above. This report presents as full a picture of the region's needs and assets as possible, using only non-tribal data sources; however, it is necessarily somewhat limited in its scope, given that many of the young children in the region reside on tribal lands.

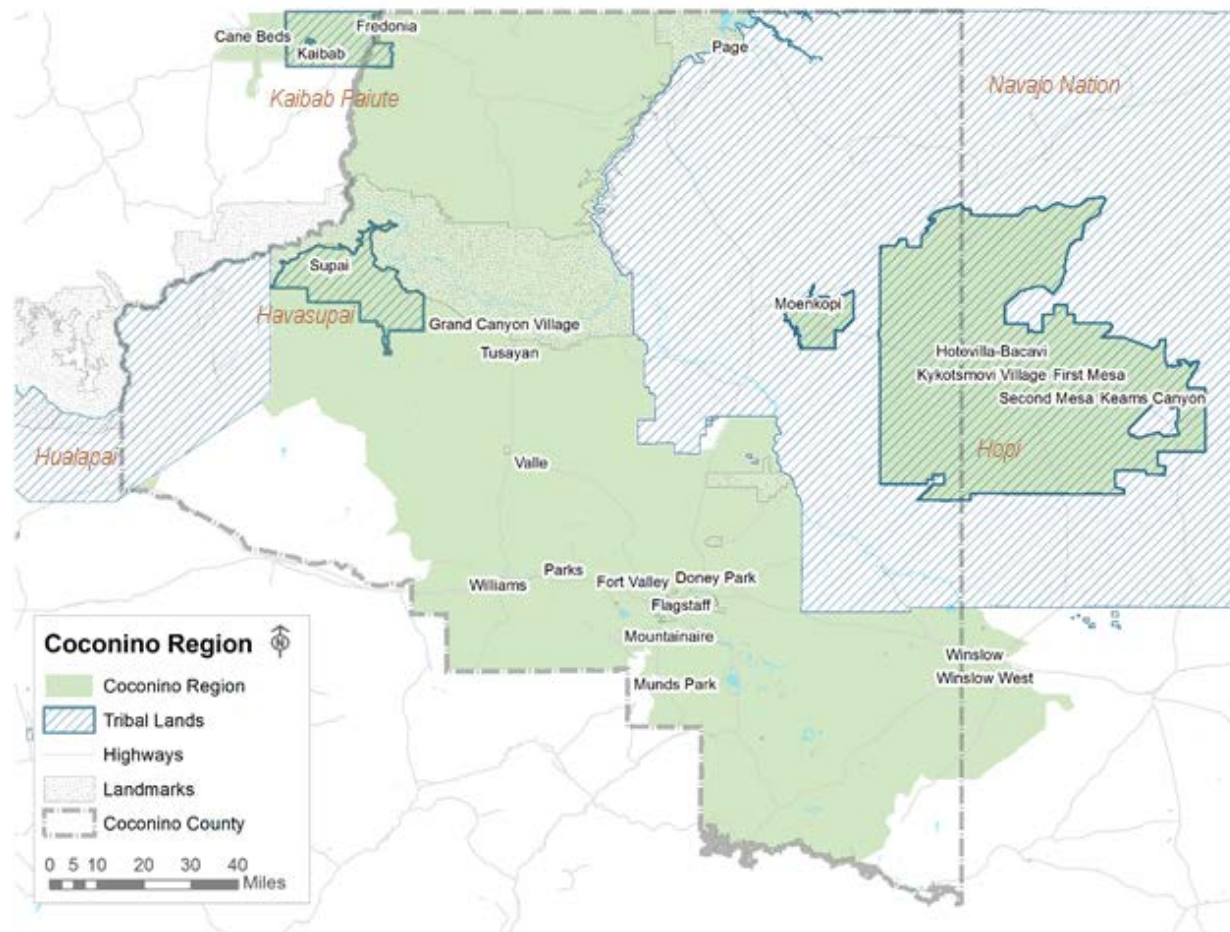
***Differences between the Coconino FTF Region and Coconino County***

As noted above, the Coconino Region includes the Hopi, Havasupai, and Kaibab Paiute reservations but does not include the Navajo Nation or the Hualapai Reservation. Additionally, there are a few other differences between the county and the FTF region.

To the south, there are three zip codes which cross the Coconino-Yavapai border. Each of these is assigned to the Yavapai Region. These three are 86336 (which includes the city of Sedona), 86320 (Ash Fork), and 86337 (Seligman).

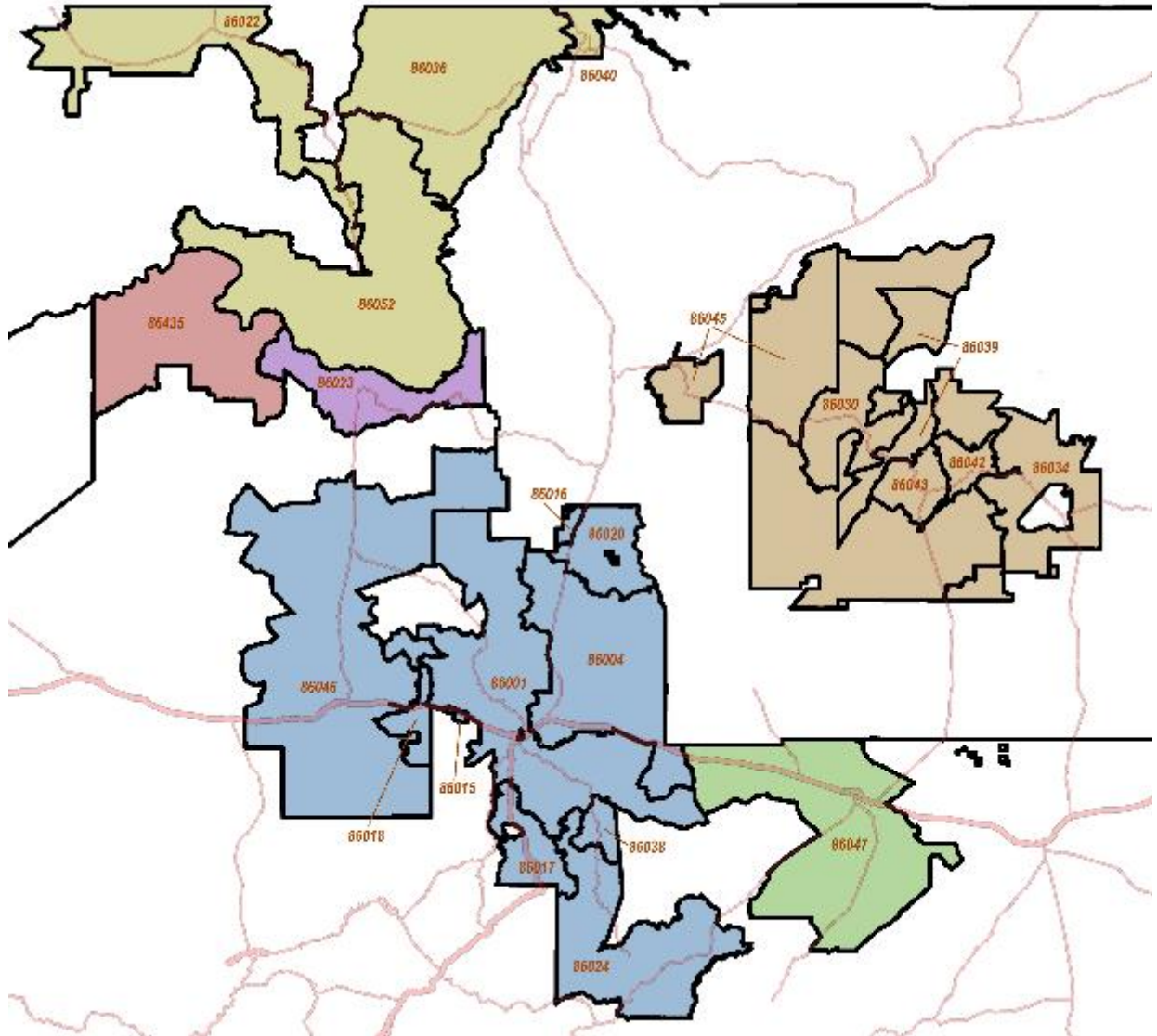
In the southeastern corner of Coconino County is the 85931 zip code. This zip code, which includes Forest Lakes Estates, is assigned to the Navajo/Apache Region because its residents are likely to travel east into Navajo County for many services.

**Figure 1. The First Things First Coconino Region**



Source: 2010 TIGER/Line Shapefiles prepared by the US Census

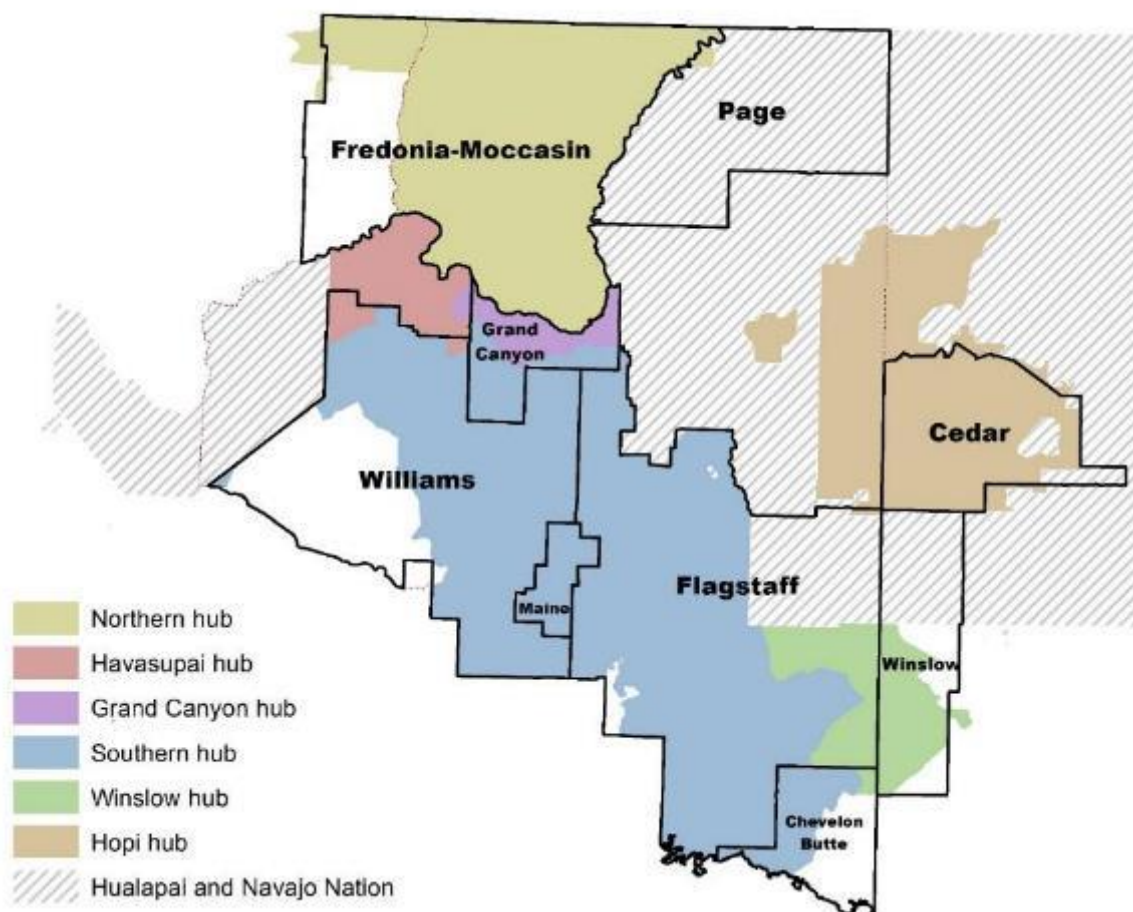
**Figure 2. The Coconino Region, by zip code area**



Source: 2010 TIGER/Line Shapefiles prepared by the US Census

Figure 3 below shows the nine school districts that fall within the Coconino Region. Six of these districts are entirely in Coconino County: Flagstaff, Page, Williams, Grand Canyon, Maine, and Chevelon Butte. The Fredonia-Moccasin district lies partly in Coconino County and partly in Mohave County. The Winslow and Hopi districts are entirely in Navajo County. The Chevelon Butte district has no schools of its own, but it pays for children living there to attend schools in neighboring districts.

**Figure 3. The school districts in the Coconino Region**



*Note: There is no school district defined for the Havasupai lands. Chevelon Butte has no schools of its own, but sends children living there to schools in neighboring districts.*

*Source: 2010 TIGER/Line Shapefiles prepared by the US Census*

According to US Census data, the Coconino Region had a population of 124,163 in 2010. Of these, 9,723 (8%) were young children under the age of six. Table 1 below lists the population of each of the hubs, the total region, the county, and the state. The number of households (individual, occupied housing units) and the number of households with at least one young child are also listed. In the Coconino Region, 16 percent of households included a child under the age of six, which is the same proportion we see in the state of Arizona as a whole.

About 70 percent of the young children in the region live in the Southern Hub. The Winslow and Northern hubs account for another 10 percent each. Households with small children are much more common in the Havasupai Hub, and less common in the Grand Canyon Hub.

In 2010, there were 730 persons enrolled in the Havasupai Tribe. Note that this number includes all members, whether or not they live on the reservation. (The 2010 Census would include only persons living on the reservation.) By 2014, the tribal enrollment had increased to 742.

In both the region and the state, the largest cohort of young children was those who were three years old at the time of the census in April 2010. Following the 2008 economic downturn, the number of births decreased. We will discuss recent trends in births data in a later section of this report.

**Table 1. Populations and households in the Coconino Region**

GEOGRAPHY	TOTAL POPULATION	POPULATION (AGES 0-5)	TOTAL NUMBER OF HOUSEHOLDS	HOUSEHOLDS WITH ONE OR MORE CHILDREN (AGES 0-5)	
Coconino Region	124,163	9,723	43,586	6,826	16%
Southern Hub	93,010	6,811	33,430	4,860	15%
Winslow Hub	10,822	966	3,326	666	20%
Northern Hub	10,117	970	3,636	646	18%
Hopi Hub					
Grand Canyon Hub	2,627	151	1,034	109	11%
Havasupai Hub	481	64	105	38	36%
Coconino County	134,421	10,777	46,711	7,474	16%
Arizona	6,392,017	546,609	2,380,990	381,492	16%

Note: Data about the Hopi Hub are not included in this report.

US Census (2010). Tables P1, P14, P20. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

**Table 2. Population of children in the Coconino Region, by single year from birth to age five**

GEOGRAPHY	POPULATION IN 2010 US CENSUS (APRIL 2010)						
	AGES 0-5	AGE 0	AGE 1	AGE 2	AGE 3	AGE 4	AGE 5
Coconino Region	9,723	1,569	1,577	1,653	1,698	1,555	1,671
Coconino County	10,777	1,732	1,773	1,845	1,882	1,713	1,832
Arizona	546,609	87,557	89,746	93,216	93,880	91,316	90,894

US Census (2010). Table P14



In the ten years between the 2000 Census and the 2010 Census, the population of the Coconino Region grew by 18 percent, which was less than the state's growth rate of 25 percent. The increase in the number of young children (11%) was also lower than for the state (19%). The hub with the greatest increase in the number of young children was the Northern Hub, which saw an 18 percent increase over the decade.

**Table 3. Changes in population from 2000 to 2010**

GEOGRAPHY	TOTAL POPULATION			POPULATION OF CHILDREN (0-5)		
	2000 CENSUS	2010 CENSUS	CHANGE	2000 CENSUS	2010 CENSUS	CHANGE
Coconino Region	105,369	124,163	18%	8,785	9,723	11%
Southern Hub	76,220	93,010	22%	6,108	6,811	12%
Winslow Hub	10,574	10,822	2%	945	966	2%
Northern Hub	9,181	10,117	10%	819	970	18%
Hopi Hub						
Grand Canyon Hub	2,084	2,627	26%	135	151	12%
Havasupai Hub	508	481	-5%	62	64	3%
Coconino County	116,320	134,421	16%	10,284	10,777	5%
Arizona	5,130,632	6,392,017	25%	459,141	546,609	19%

Source: US Census (2010). Tables P1, P14; US Census, 2000, Table QT-P2. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Population projections for the state show a slight decrease in the population of children aged birth through five years by 2015, but then increases through the year 2025. Projections for Coconino County show a similar, yet smaller trend over the next decade (see Table 3).

**Table 4. Population projections for children under six, 2015 to 2025**

GEOGRAPHY	2010 CENSUS (AGES 0-5)	2015		2020		2025	
		POPULATION PROJECTION (AGES 0-5)	PROJECTED CHANGE FROM 2010	POPULATION PROJECTION (AGES 0-5)	PROJECTED CHANGE FROM 2010	POPULATION PROJECTION (AGES 0-5)	PROJECTED CHANGE FROM 2010
Coconino County	10,777	10,556	-2%	11,100	+3%	11,055	+3%
Arizona	546,609	537,167	-2%	610,422	+12%	672,844	+23%

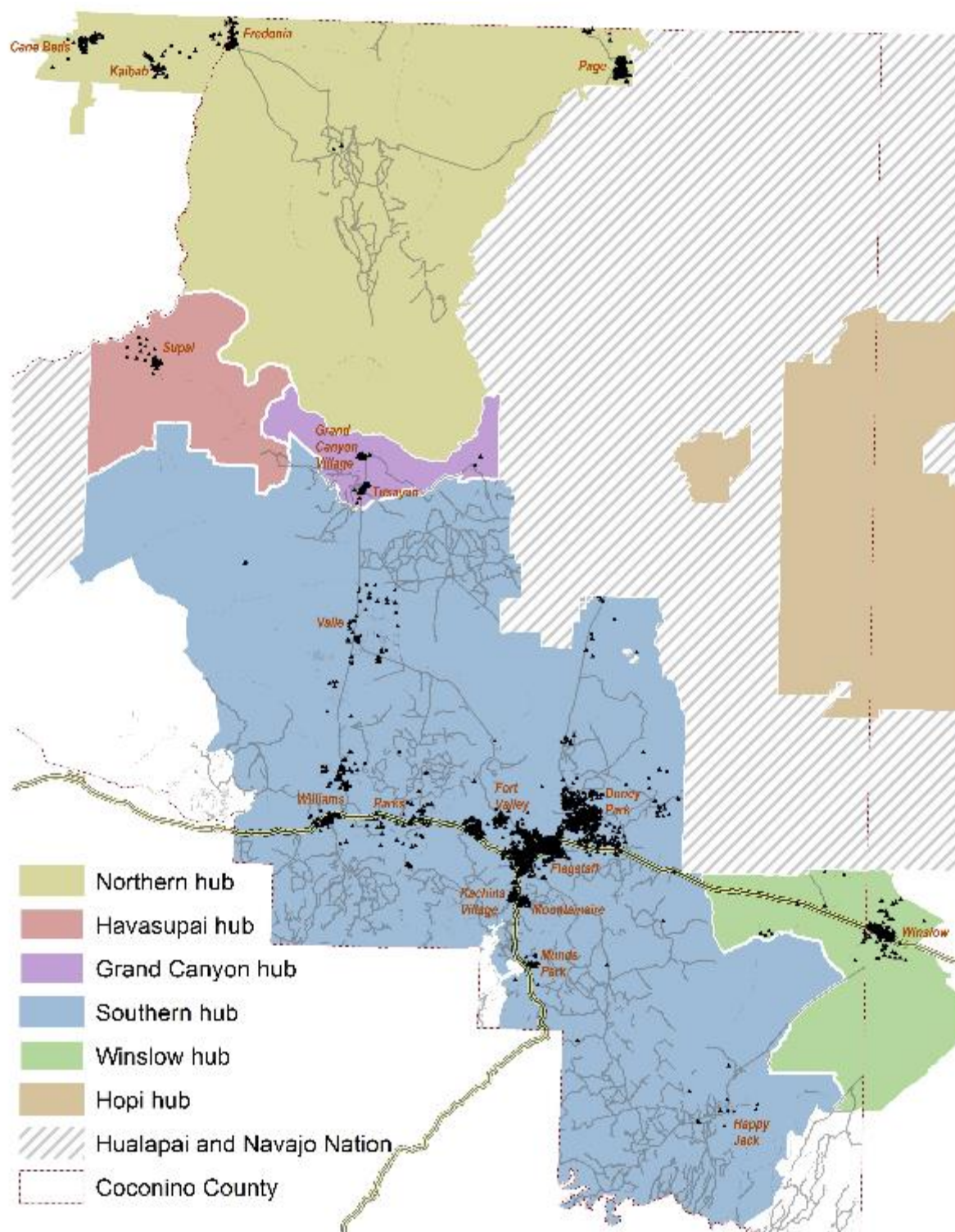
Arizona Department of Administration, Office of Employment and Population Statistics (December 2012): "2012-2050 State and county population projections (Medium series)"

The map in Figure 5 shows where the young children in the Coconino Region live, according to the 2010 US Census. Each black dot on the map shows the approximate location of one child under the age of six. The map shows that, while the majority of the region's children live in Flagstaff and other cities and places, there are many children living in less populated areas.

The next map (Figure 6) zooms in on the city of Flagstaff and the surrounding unincorporated communities of Doney Park, Kachina Village, Mountaineer, Bellemont, and Fort Valley.



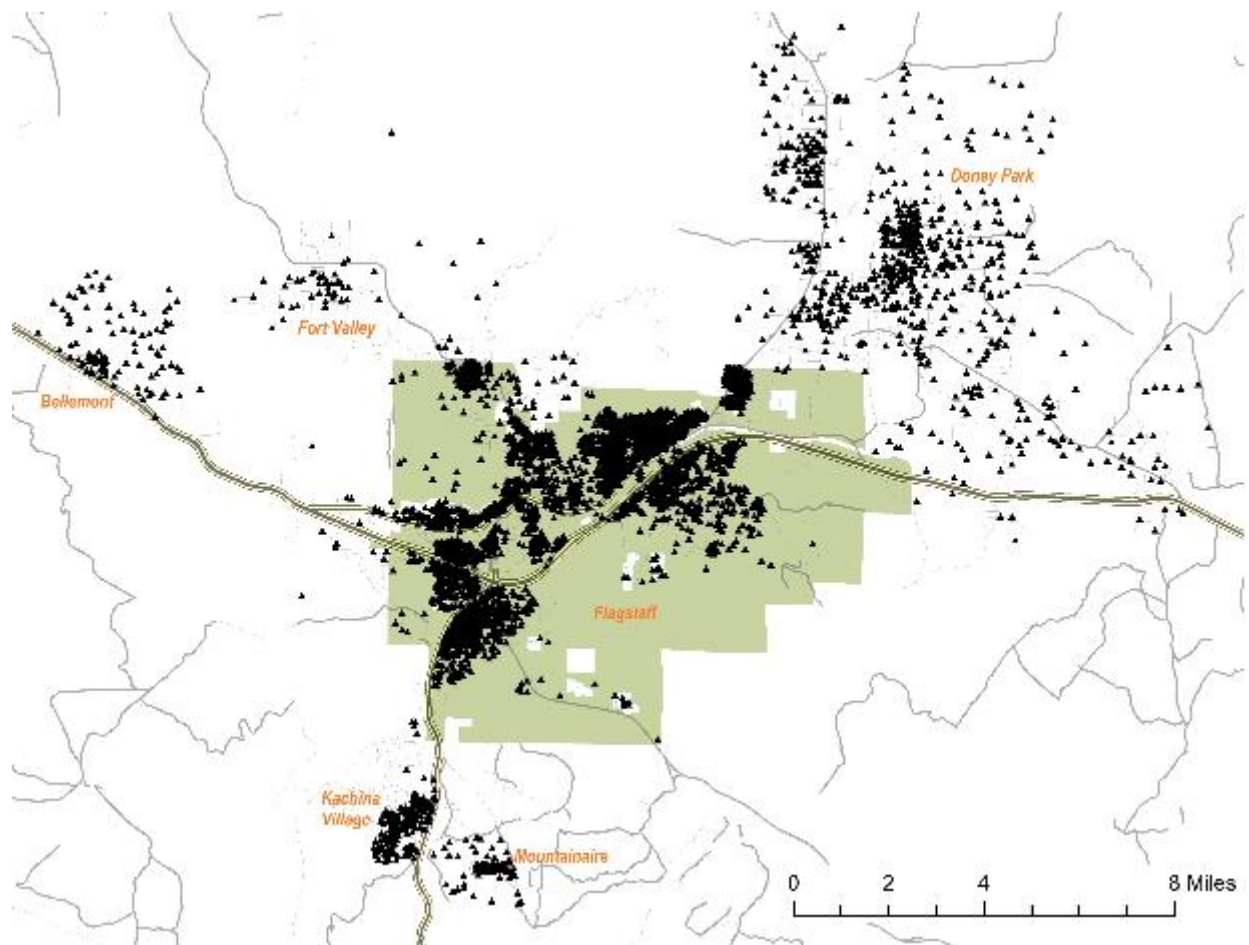
**Figure 4. Geographic distribution of children under six, according to the 2010 US Census**



**NOTE:** Each dot represents the approximate location of one child under the age of six. Children living on the Hopi Reservation are not displayed on this map.

US Census (2010) Table P14, and 2010 TIGER/Line Shapefiles prepared by the US Census. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

**Figure 5. Geographic distribution of children under six, in and around the city of Flagstaff**



**NOTE:** Each black dot represents the approximate location of one child under the age of six. The city limits of Flagstaff are indicated by the green background.

US Census (2010) Table P14, and 2010 TIGER/Line Shapefiles prepared by the US Census.

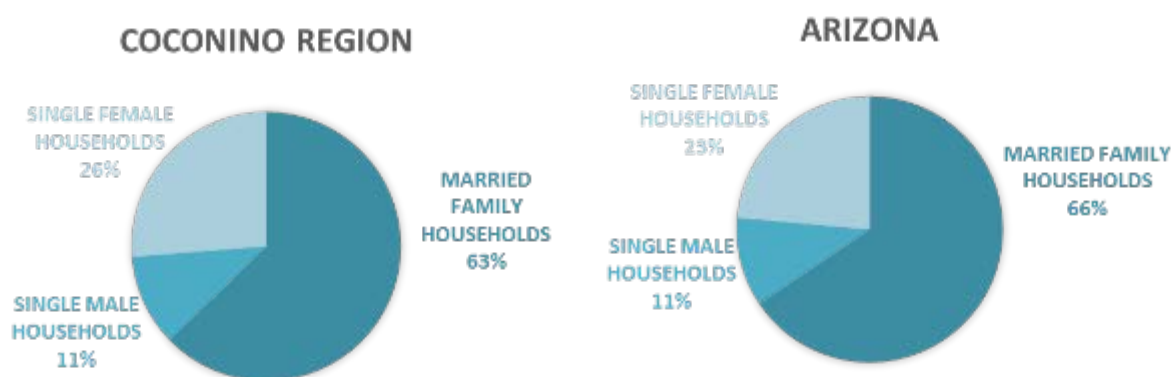
## Additional Population Characteristics

### Household Composition

From the 2010 US Census, we can learn something about the families with which the children under age six were living. Almost two-thirds (63%) of the young children in the Coconino Region lived in a family headed by a married husband and wife. (Note that the heads of the household might be the child's parents, grandparents, other relatives, or an unrelated couple.)

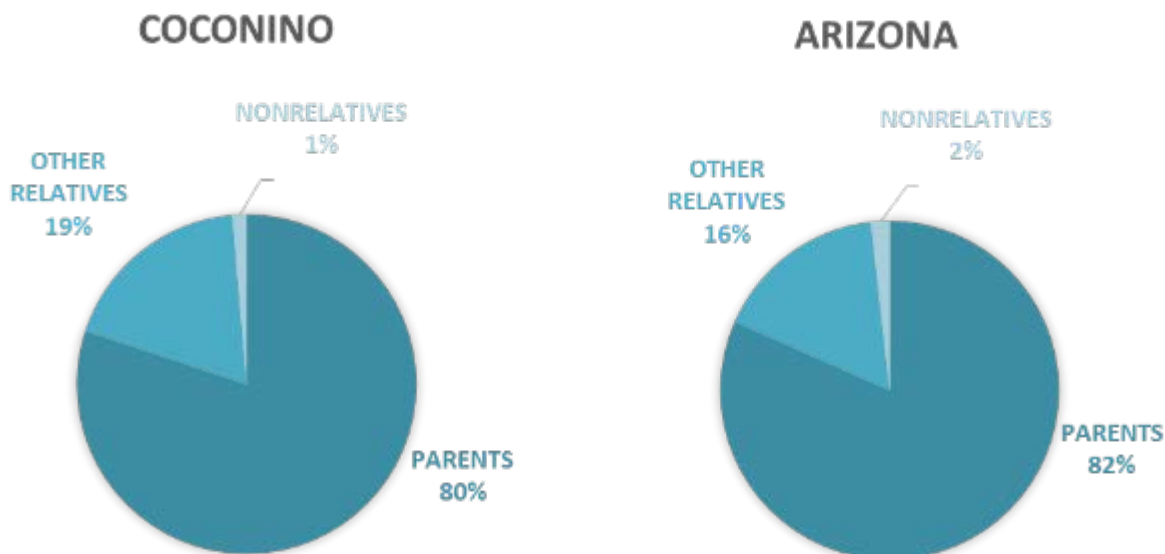
About one-quarter (26%) were living in a household whose head was an unmarried woman, and the remaining children (11%) were living in an unmarried man's household. (Note that the head of household could be the child's parent, grandparent, other relative, or an unrelated adult.) These percentages are roughly the same as those we see in the state of Arizona as a whole.

**Figure 6. Types of households with children (0-5)**



US Census (2010). Table P20. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Another way to examine young children's living arrangements from the Census data is to observe the relationship of the child to the head(s) of the household in which he or she lives. In the Coconino Region, 80 percent of children under six live with one or both parents (or step-parents). Almost all of the rest (19%) live with their grandparents or other relatives. Only 1 percent live in households headed by an unrelated adult. These proportions are similar to those we see in the state as a whole. (Note that in these data, we cannot distinguish between homes headed by two married parents and those headed by a single parent.)

**Figure 7. Living arrangements for children (0-5)**

US Census (2010). Table P32. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

### **Grandparents**

A third way to look at young children's living arrangements is to see how many children are living in a household headed by their grandparent(s). In Arizona, over 74,000 children aged birth to five (14%) are living in a grandparent's household (see Table 5). This percentage is about the same as in the Coconino Region (16%). Children living in a grandparent's household is relatively more common in the region's tribal areas. Extended families that involve multiple generations and relatives along both vertical and horizontal lines are an important characteristic of many American Indian families.<sup>3</sup> Note that these numbers include children who are being raised by their grandparents as well as those who may be living with their parents and grandparents in a multi-generational household. Just over 50 percent of grandparents with a child living in their household are estimated to be the primary caregivers for their grandchildren. (Source: "More U.S. Children Raised by Grandparents," Population Reference Bureau, 2012.)

The Arizona Children's Action Alliance reports that in Arizona, approximately 36 percent of grandparents caring for grandchildren under 18 have been doing so for at least five years, and that 21 percent of these grandparents are living in poverty. (Source: "Grandfamilies Fact Sheet," Children's Action Alliance, 2012.) Parenting can be a challenge for aging grandparents, whose homes may not be set up for children, who may be unfamiliar with resources for families with young children, and who themselves may be facing health and resource limitations. They also are not likely to have a natural support network for dealing with the issues that arise in

<sup>3</sup> Hoffman, F. (Ed.). (1981). *The American Indian Family: Strengths and Stresses*. Isleta, NM: American Indian Social Research and Development Associates.

raising young children. Often, grandparents take on childraising responsibilities when parents are unable to provide care because of the parent's death, unemployment or underemployment, physical or mental illness, substance abuse, incarceration, or because of domestic violence or child neglect in the family. Caring for children who have experienced family trauma can pose an even greater challenge to grandparents, who may be in need of specialized assistance and resources to support their grandchildren.

There is some positive news for grandparents and great-grandparents raising their grandkids through a Child Protective Services (CPS) placement. Starting in February 2014, these families have been offered a \$75 monthly stipend per child. To qualify, a grandparent or great-grandparent must have an income below 200% of the Federal Poverty Level (FPL), and not be receiving foster care payments or TANF cash assistance for the grandchildren in their care. In addition to this monetary support, a number of programs and services to support grandparents raising their grandkids are available across the state. (Source: <http://www.aarp.org/content/dam/aarp/relationships/friends-family/grandfacts/grandfacts-arizona.pdf>)

**Table 5. Numbers of children living in a grandparent's household, 2010**

GEOGRAPHY	POPULATION (AGES 0-5)	CHILDREN (0-5) LIVING IN A GRANDPARENT'S HOUSEHOLD	
Coconino Region	9,723	1,512	16%
Southern Hub	6,811	778	11%
Winslow Hub	966	167	17%
Northern Hub	970	155	16%
Hopi Hub			
Grand Canyon Hub	151	16	11%
Havasupai Hub	64	30	47%
Coconino County	10,777	2,210	21%
Arizona	546,609	74,153	14%

US Census (2010). Table P41. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

### **Foreign-born parents**

Some young children in the region are living with at least one foreign born parent. In Arizona, the American Community Survey (ACS) estimates that about 29 percent of children aged birth through five are living with one or two foreign-born parents. This proportion is much lower in the Coconino Region, where only 12 percent of children are living with a foreign-born parent. The Grand Canyon Hub has the highest rate (60%) of young children living with a foreign-born parent.



**Table 6. Numbers of children (0-5) living with foreign-born parents, 2008-2012**

GEOGRAPHY	2010 CENSUS POPULATION (AGES 0-5)	CHILDREN (AGES 0-5) LIVING WITH ONE OR TWO FOREIGN- BORN PARENTS
Coconino Region	9,723	12%
Southern Hub	6,811	15%
Winslow Hub	966	4%
Northern Hub	970	0%
Hopi Hub		
Grand Canyon Hub	151	60%
Havasupai Hub	64	xx
Coconino County	10,777	11%
Arizona	546,609	29%

US Census (2013). US Census (2013). American Community Survey 5-Year Estimates, 2008-2012, Table B05009. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Note: An entry of xx indicates that an estimate cannot be reported, because of the small sample size.

## Ethnicity and Race

Compared to the state of Arizona, the adult population of the Coconino Region is relatively less Hispanic (14%, compared to 25%) and relatively more American Indian (16%, compared to 4%). Within the region, the Winslow Hub has the largest proportion of Hispanic adults (30%). All six community hubs—not only the tribal areas—have a higher proportion of American Indian adults than the state as a whole.

For children from birth to four years old, however, the distribution of race and ethnicity is markedly different. More than one-quarter (27%) of the children under five in the Coconino Region are Hispanic, which is almost twice the proportion of Hispanics in the adult population (14%). The difference is largest in the Northern Hub, where Hispanics make up only 6 percent of the adult population, but 38 percent of the 0-to-4 population. We see a similar pattern in the Grand Canyon Hub. The Winslow Hub, however, shows the opposite pattern: Hispanics are 30 percent of the adult population, but only 9 percent of the under-five population.

Additionally, the proportion of American Indian children in the region (28%) is considerably larger than the proportion in the adult population (16%). This difference can be seen within each hub, as well.

**Table 7. Race and ethnicity for adults (ages 18 and older), 2010**

GEOGRAPHY	POPULATION (18 and older)	HISPANIC	NOT HISPANIC				
			WHITE	BLACK	AMERICAN INDIAN	ASIAN or PACIFIC ISLANDER	OTHER
Coconino Region	95,783	14%	65%	2%	16%	2%	2%
Southern Hub	73,164	15%	72%	2%	9%	2%	2%
Winslow Hub	7,914	30%	40%	6%	21%	1%	2%
Northern Hub	7,249	6%	67%	0%	24%	1%	2%
Hopi Hub							
Grand Canyon Hub	2,284	13%	60%	2%	15%	9%	1%
Havasupai Hub	329	3%	3%	0%	91%	0%	3%
Coconino County	102,633	12%	60%	1%	23%	2%	2%
Arizona	4,763,003	25%	63%	4%	4%	3%	1%

US Census (2010). Table P11. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Note: In this table, the six categories of race and ethnicity are mutually exclusive. Each adult is counted in one and only one of the six categories. The percentages in each row of the table sum to 100 percent, approximately.

**Table 8. Race and ethnicity for children (0-4), 2010**

GEOGRAPHY	POPULATION (AGES 0-4)	HISPANIC OR LATINO	WHITE (NOT HISPANIC)	AFRICAN AMERICAN	AMERICAN INDIAN	ASIAN OR PACIFIC ISLANDER
Coconino Region	8,052	27%	42%	1%	28%	1%
Southern Hub	5,637	30%	50%	1%	16%	1%
Winslow Hub	796	9%	45%	0%	37%	1%
Northern Hub	799	38%	21%	2%	39%	1%
Hopi Hub						
Grand Canyon Hub	129	34%	33%	1%	21%	2%
Havasupai Hub	57	4%	0%	0%	100%	0%
Coconino County	8,945	22%	36%	1%	39%	1%
Arizona	455,715	45%	40%	5%	6%	3%

US Census (2010). Tables P12B, P12C, P12D, P12E, P12F, P12G, P12H, P12I. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Note: In this table, the five categories of race and ethnicity are not mutually exclusive. The percentages in each row may sum to more than or less than 100 percent. It is possible, for example, that some African-American, American Indian, or Asian-Pacific Islander children also report Hispanic ethnicity. These children would be counted twice in this table. Children reporting two or more races would not be counted in this table.

Note: The number for children ages 0-5 are not readily available from the US Census, but it is likely that the race and ethnicity distributions for children under six are similar to those of children under five.

## Language Use and Proficiency

An estimated 78 percent of residents of the Coconino Region report speaking only English at home, which is slightly higher than the statewide rate of 73 percent. In the Winslow Hub, the



rate of English in the home is relatively lower (57%), and the rate of Spanish and native North American languages are higher (12% and 30%).

The use of languages other than English in the home does not necessarily mean a lack of fluency in English. The ACS estimates that 5 percent of the residents of the Coconino Region speak English less than very well, which is higher than the statewide rate (2%).

Table 9 below presents a different aspect of language use in the region. An estimated 3 percent of the households in the Coconino Region are *linguistically isolated*. A linguistically isolated household is one in which there is no one older than 13 who speaks English very well. Such households might conduct much of their business within their language community, but might need help from a translator at times. The proportion of linguistically isolated households is somewhat higher in the Winslow Hub and in the tribal hubs. In the Southern and Grand Canyon hubs, most of the linguistically isolated households are Spanish-speaking. In the Havasupai Hub, none of the linguistically isolated households are Spanish-speaking. In the Winslow Hub, most of the linguistically isolated households speak a language other than Spanish.

**Table 9. Home language use, for persons 5 years and older**

GEOGRAPHY	2010 CENSUS POPULATION (AGE 5 AND OLDER)	PERSONS (5+) WHO SPEAK ONLY ENGLISH AT HOME	PERSONS (5+) WHO SPEAK SPANISH AT HOME	PERSONS (5+) WHO SPEAK A NATIVE NORTH AMERICAN LANGUAGE AT HOME	PERSONS (5+) WHO SPEAK ENGLISH LESS THAN "VERY WELL"
Coconino Region	116,153	78%	9%	11%	5%
Southern Hub	88,000	84%	10%	4%	3%
Winslow Hub	10,395	57%	12%	30%	11%
Northern Hub	9,171	78%	4%	18%	9%
Hopi Hub					
Grand Canyon Hub	1,390	86%	8%	5%	7%
Havasupai Hub	219	5%	3%	25%	14%
Coconino County	125,062	76%	8%	14%	7%
Arizona	5,955,604	73%	21%	2%	2%

Sources: US Census (2010). Table P14. US Census (2013). American Community Survey 5-Year Estimates, 2008-2012, Table B16001.

**Table 10. Household language use**

GEOGRAPHY	TOTAL NUMBER OF HOUSEHOLDS	HOUSEHOLDS IN WHICH A LANGUAGE OTHER THAN ENGLISH IS SPOKEN (ALL LANGUAGES)	HOUSEHOLDS IN WHICH SPANISH IS SPOKEN	LINGUISTICALLY ISOLATED HOUSEHOLDS (ALL LANGUAGES)	LINGUISTICALLY ISOLATED HOUSEHOLDS (SPANISH- SPEAKING)
Coconino Region	43,586	25%	11%	3%	2%
Southern Hub	33,430	19%	12%	2%	2%
Winslow Hub	3,326	49%	12%	8%	2%
Northern Hub	3,636	33%	6%	4%	2%
Hopi Hub					
Grand Canyon Hub	1,034	6%	3%	1%	1%
Havasupai Hub	105	93%	8%	7%	0%
Coconino County	46,711	28%	10%	5%	2%
Arizona	2,380,990	27%	19%	5%	4%

US Census (2013). American Community Survey 5-Year Estimates, 2008-2012, Table B16002. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Note: A "linguistically isolated household" is one in which all adults (14 and older) speak English less than very well.

## Economic Circumstances

### Income and Poverty

Income measures of community residents are an important tool for understanding the vitality of the community and the well-being of its residents. The Arizona Children's Action Alliance reports that overall in Arizona, disparities in income distribution are increasing rapidly, with Arizona having the second widest income gap between the richest 20 percent and poorest 20 percent of households in the nation. In addition, Arizona ranks fifth in the nation in income inequality between the top income (top 20%) and the middle income (middle 20%) households. The Arizona Directions 2012 report notes that Arizona has the 5th highest child poverty rate in the country. In 2012, more than one out of four children in Arizona was living in poverty (family income below \$18,284 for a family of three). The effects on children living in poverty can be felt throughout their lives, including the link between childhood poverty and mental health issues in adulthood. The increased likelihood of exposure to violence, family dysfunction, and separation from family, and living in chaotic, crowded and substandard housing all increase the risk of poorer mental health status later in life. (Sources: "Wide and Growing Income Gaps in Most States, New Report Finds Rich Pulling Away from Low-and Middle-Income Households," Center on Budget and Policy Priorities, November 2012. "Arizona Directions Report 2012: Fostering Data-Driven Dialogue in Public Policy," Arizona Indicators, November 2011. "Arizona Shows No Improvement in Child Poverty," Arizona Children's Action Alliance, September 2013. "Childhood poverty, cumulative risk exposure, and mental health in emerging adults," Clinical Psychological Science, October 2013.)

As can be seen in Table 11, the percentage of the population living in poverty in the Coconino Region is somewhat higher than in the state of Arizona as a whole. This is true for the total

population (21%, compared to 17% statewide) and for the population of children under six (30%, compared to 27% statewide). More than one-third of the young children in the Winslow Hub are estimated to be living in poverty.

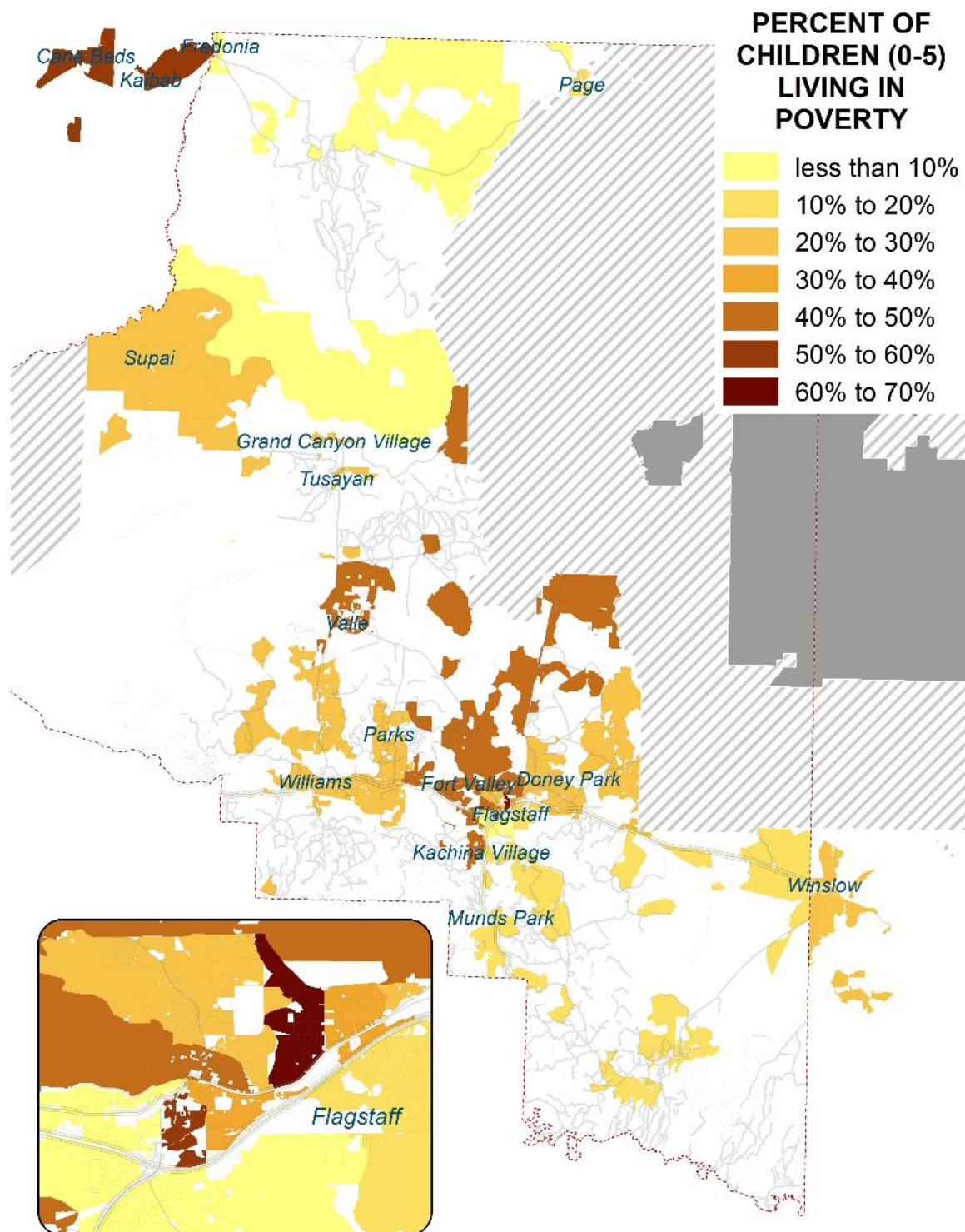
**Table 11. Persons living below the federal poverty level (2008-2012 average)**

GEOGRAPHY	POPULATION IN POVERTY (ALL AGES)	ALL RELATED CHILDREN (0-5) IN POVERTY
Coconino Region	21%	30%
Southern Hub	20%	29%
Winslow Hub	25%	35%
Northern Hub	17%	20%
Hopi Hub		
Grand Canyon Hub	33%	xx
Havasupai Hub	xx	xx
Coconino County	22%	29%
Arizona	17%	27%

US Census (2013). American Community Survey 5-Year Estimates, 2008-2012, Table B17001. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Note: An entry of xx indicates that an estimate cannot be reported, because of the small sample size.

**Figure 8. Percent of children (0-5) living in poverty, by census tract**



US Census (2013). American Community Survey 5-Year Estimates, 2008-2012, Table B17001. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Between 2007 and 2012, the population of Arizona increased by about three percent, but the percent of the population living below the Federal Poverty Level grew by 37 percent. In 2012, women in Arizona had a poverty rate of 20 percent, compared to 18 percent for men. Women are more likely to be living in poverty than men for a number of reasons: (a) they are more likely to be out of the workforce, (b) they are more likely to be in low-paying jobs, and (c) they are more likely to be solely responsible for children. In 2012, 79 percent of low-income single-parent households were headed by women.<sup>4</sup>

Table 12 shows the median family income in the five incorporated cities and towns in Coconino County. The median income is the amount which separates the lower 50 percent of families from the upper 50 percent. In Coconino County, for example, about half of all families have an annual income less than \$59,082 and the other half have an income higher than that. The median income for all families in the county is similar to the statewide median. For husband-wife families, the median income in the county is about \$4,600 higher than in the state. For families headed by a single female, the median income is about \$3,600 less per year than in the state as a whole.

**Table 12. Median annual family income**

CITY OR TOWN	MEDIAN FAMILY INCOME			
	ALL FAMILIES	HUSBAND-WIFE FAMILIES WITH CHILD UNDER 18	SINGLE-MALE FAMILIES WITH CHILD UNDER 18	SINGLE-FEMALE FAMILIES WITH CHILD UNDER 18
Flagstaff	\$67,302	\$79,634	\$34,911	\$24,130
Winslow	\$59,868	\$78,229	\$17,351	\$23,000
Page	\$72,475	\$77,702	\$32,361	\$21,490
Fredonia	\$43,375	\$49,712	xx	xx
Williams	\$47,143	\$65,864	\$39,800	\$23,393
Coconino County	\$59,082	\$77,807	\$35,309	\$22,704
Arizona	\$59,563	\$73,166	\$36,844	\$26,314

US Census (2013). American Community Survey 5-Year Estimates, 2008-2012, Table B19126. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

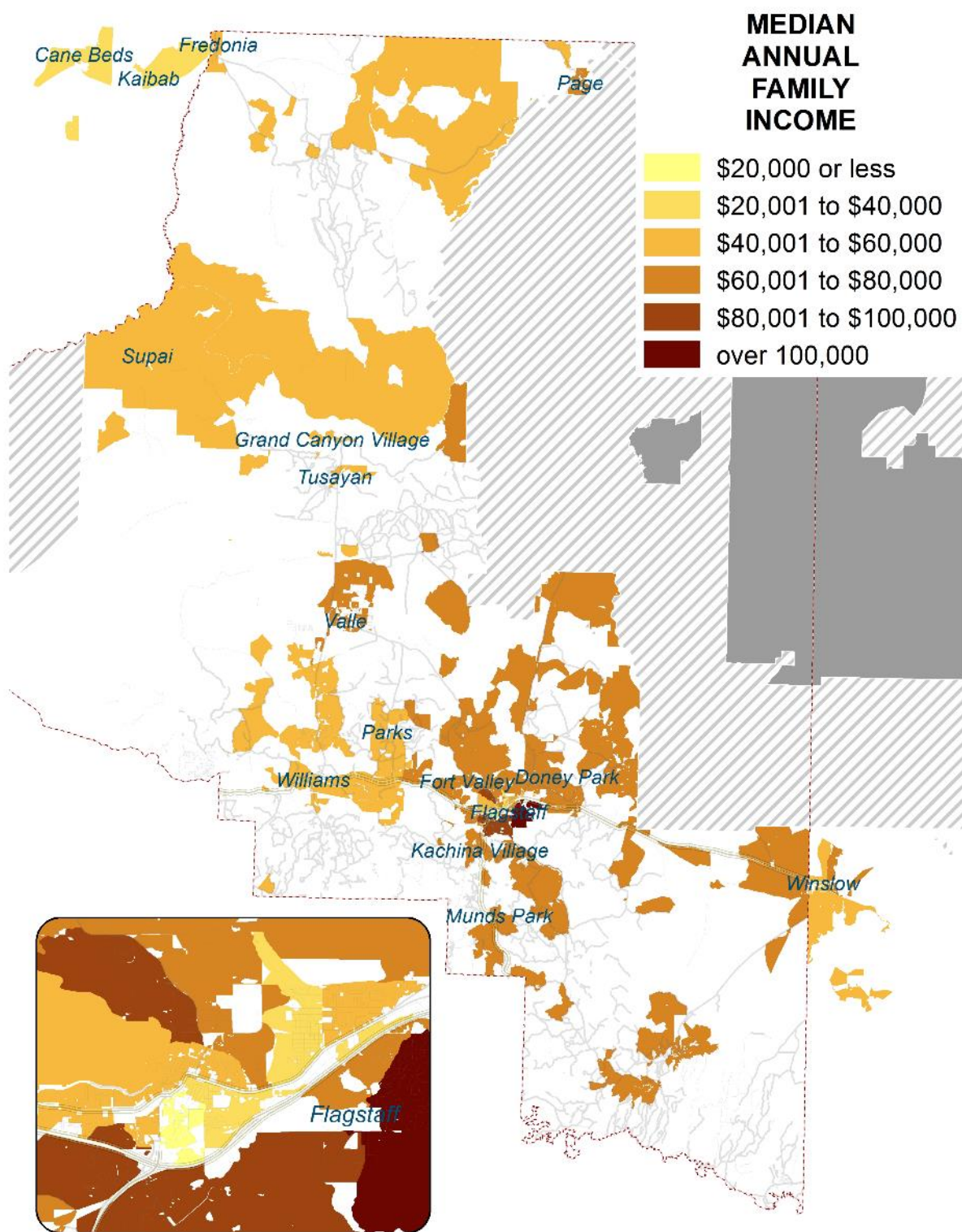
Note: It is not possible to report median incomes for each hub, or for the Coconino Region as a whole. An entry of xx indicates that an estimate cannot be reported, because of the small sample size.

According to the Living Wage Project, a single adult with one child in Coconino County needs to earn \$44,140 per year to afford a basic standard of living. This is about 8 percent higher than the estimated living wage for the state of Arizona as a whole, which is \$40,820 per year. The major difference between the county and the state is the cost of housing, which is estimated to be about 25 percent higher in Coconino County than in the state as a whole. (Source: Glasmeier & Schultheis, 2012, Dept of Urban Studies, MIT.)

<sup>4</sup> Castelazo, M. (2014). Supporting Arizona Women's Economic Self-Sufficiency. An Analysis of Funding for Programs that Assist Low-income Women in Arizona and Impact of those Programs. Report Produced for the Women's Foundation of Southern Arizona by the Grand Canyon Institute.



**Figure 9. Median annual family income, by census tract**



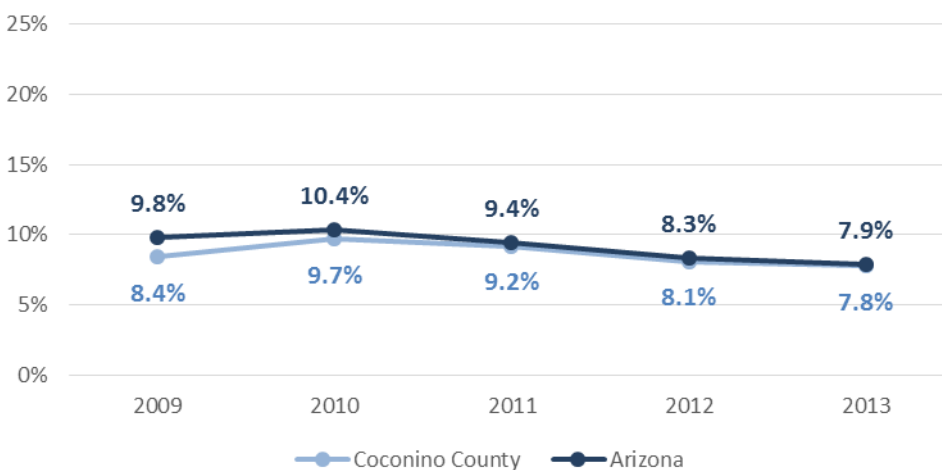
US Census (2013). American Community Survey 5-Year Estimates, 2008-2012, Table B19126. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

## Unemployment and Foreclosures

Unemployment and job loss often results in families having fewer resources to meet their regular monthly expenses and support their children's development. This is especially pronounced when the family income was already low before the job loss, the unemployed parent is the only breadwinner in the household or parental unemployment lasts for a long period of time. Family dynamics can be negatively affected by job loss as reflected in higher levels of parental stress, family conflict and more punitive parental behaviors. Parental job loss can also affect children's school performance (i.e. lower test scores, poorer attendance, higher risk of grade repetition, suspension or expulsion among children whose parents have lost their jobs).<sup>5</sup>

Annual unemployment rates, therefore, can be an indicator of family stress, and are also an important indicator of regional economic vitality. Figure 10 shows the annual unemployment rates across the past few years for Coconino County and the state of Arizona. Although there was more unemployment in the county than in the state in 2009 and 2010, in recent years the county and state rates are very similar. Unemployment in the city of Flagstaff in 2013 was about 5.5 percent, much lower than in the county as a whole. Unemployment was very low in Tusayan (3.2%) and Grand Canyon Village (2.2%) in 2013.

**Figure 10. Annual average unemployment rates, 2009 to 2013**



Source: Arizona Department of Administration, Office of Employment and Population Statistics (2014). *Special Unemployment Report, 2009-2014*. Retrieved from <http://www.workforce.az.gov/local-area-unemployment-statistics.aspx>

Table 13 shows the employment status of the parents of young children (ages 0-5) living in the Coconino Region. Relatively fewer children in the Coconino Region are living with two parents, one in the labor force and the other not, than in the state (20%, compared to 29%). Also relatively more children in the Coconino Region are living with a single parent who is in the labor force (36%), compared to the state (28%). Note that parents are considered to be in the

<sup>5</sup> Isaacs, J. (2013). Unemployment from a child's perspective. Retrieved from <http://www.urban.org/UploadedPDF/1001671-Unemployment-from-a-Childs-Perspective.pdf>



labor force if they are working or looking for work. This may indicate a relatively high need for child care in the region.

**Table 13. Employment status of parents of young children (0-5)**

GEOGRAPHY	POPULATION (AGES 0-5)	CHILDREN (0-5) LIVING WITH TWO PARENTS			CHILDREN (0-5) LIVING WITH SINGLE PARENT	
		BOTH PARENTS IN LABOR FORCE	ONE PARENT IN LABOR FORCE	NEITHER PARENT IN LABOR FORCE	PARENT IN LABOR FORCE	PARENT NOT IN LABOR FORCE
Coconino Region	9,723	31%	20%	1%	36%	12%
Southern Hub	6,811	34%	22%	1%	32%	10%
Winslow Hub	966	25%	11%	0%	45%	19%
Northern Hub	970	26%	25%	1%	44%	4%
Hopi Hub						
Grand Canyon Hub	151	xx	xx	xx	xx	xx
Havasupai Hub	64	xx	xx	xx	xx	xx
Coconino County	10,777	30%	19%	1%	35%	15%
Arizona	546,609	32%	29%	1%	28%	10%

US Census (2013). American Community Survey 5-Year Estimates, 2008-2012, Table B23008. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Note: "In the labor force" includes persons who are either (a) working or (b) unemployed, but looking for work. An entry of xx indicates that an estimate cannot be reported, because of the small sample size.

Over the past four years, there have been about a half million residential foreclosure filings in the state of Arizona.<sup>6</sup> Compared to the early years of the economic downturn, there have been fewer foreclosures recently.

<sup>6</sup> Home Matters for Arizona 2013. Arizona Housing Alliance.

**Table 14. Residential foreclosures, May 2014**

GEOGRAPHY	NUMBER OF HOUSING UNITS	NUMBER OF FORECLOSURES (MAY 2014)	NUMBER OF FORECLOSURES PER 1,000 PROPERTIES (MAY 2014)	RATIO OF FORECLOSURES TO HOMES FOR SALE (MAY 2014)	PERCENT OF HOUSES THAT ARE VACANT
Coconino Region	57,552	434	0.312	0.342	26%
Southern Hub	45,940	366	0.326	0.320	27%
Winslow Hub	3,937	22	0.184	0.769	19%
Northern Hub	4,137	46	0.539	0.483	19%
Hopi Hub					
Grand Canyon Hub	661	0	0.000		21%
Havasupai Hub	xx	xx	xx	xx	29%
Coconino County	63,270	538	0.415	0.405	28%
Arizona	2,841,432	30,205	0.657	0.752	17%

Source: RealtyTrac, Inc.

Note: Data for the Havasupai Hub are not available.

In Arizona, about one-third of households are renters. Of these, 270,000 are classified as very low income renters. Over three-quarters of these low income renters, 210,000 (78%), are paying more than the recommended 30 percent of their income in rent, which is considered “housing- cost burdened.” This is often caused by a shortage of affordable rentals. In 2009, about 75 percent of very low income renters in Coconino County were classified as housing-cost burdened renters.<sup>7</sup>

The US Department of Housing and Urban Development (HUD) defines housing units with “housing problems” as housing units lacking complete kitchen facilities or complete plumbing facilities, housing units that are overcrowded (with more than 1 person per room), or housing units for which housing costs exceed 30 percent of income. Housing units with “severe housing problems” consist of housing units lacking complete kitchen facilities or complete plumbing facilities, housing units that are overcrowded (with more than 1.5 person per room), or housing units for which housing costs exceed 50 percent of income. The percentage of housing units in the region and county that have housing problems and severe housing problems is also similar to the state rate. Just over 40 percent of housing units in the region are classified as having housing problems (see Table 15). These types of housing problems appear to be less frequent in the Grand Canyon Hub. Key informants in the Havasupai Hub note that in addition to the housing challenges included in the HUD definition of housing problems, some residents experience problems with periodic flooding, which is not reflected in this measure.

<sup>7</sup> Home Matters for Arizona 2013. Arizona Housing Alliance.

**Table 15. Percent of housing units with housing problems (2008-2010 average)**

GEOGRAPHY	TOTAL HOUSING UNITS	HOUSING PROBLEMS	SEVERE HOUSING PROBLEMS
Coconino Region	43,126	42%	23%
Southern Hub	32,819	44%	23%
Winslow Hub	3,110	33%	19%
Northern Hub	3,438	29%	17%
Hopi Hub			
Grand Canyon Hub	579	10%	2%
Havasupai Hub	190	26%	21%
Coconino County	45,474	43%	25%
Arizona	2,326,354	38%	20%

US Department of Housing and Urban Development (2011). CHAS 2008-2010 ACS 3-year average data by place. Retrieved from [http://www.huduser.org/portal/datasets/cp/CHAS/data\\_download\\_chas.html](http://www.huduser.org/portal/datasets/cp/CHAS/data_download_chas.html)

## Public Assistance Programs

Participation in public assistance programs is an additional indicator of the economic circumstances in the region. Public assistance programs commonly used by families with young children in Arizona include the Supplemental Nutrition Assistance Program (SNAP, formerly known as “food stamps”), Temporary Assistance for Needy Families (TANF, which replaced previous welfare programs), and the Women, Infants, and Children program (WIC).

### SNAP

Nutritional Assistance, or SNAP, helps to provide low-income families in Arizona with food through retailers authorized to participate in the program. According to a U.S. Department of Agriculture Economic Research Service, in 2010, about 20 percent of Arizonans lived in food deserts, defined as living more than a half-mile from a grocery in urban areas and more than 10 miles in rural areas. Families living in food deserts often use convenience stores in place of grocery stores. New legislation in 2014 could have an effect on what’s available in these stores, as they will have to begin stocking “staple foods” (such as bread or cereals, vegetables or fruits, dairy products, and meat, poultry or fish) to continue accepting SNAP.

The number of children receiving SNAP has increased slightly in the Coconino Region over the last several years (see Table 16). Participation rates in the region are similar to statewide rates. There is variability across communities in the region in the percentage of children aged birth through five who are receiving SNAP. Almost 60 percent of young children in the Winslow Hub receive SNAP, and this percentage increased slightly from 2010 to 2012. SNAP participation has dropped by nearly one fifth in the Havasupai Hub. Relatively few young children in the Grand Canyon Hub receive SNAP benefits.

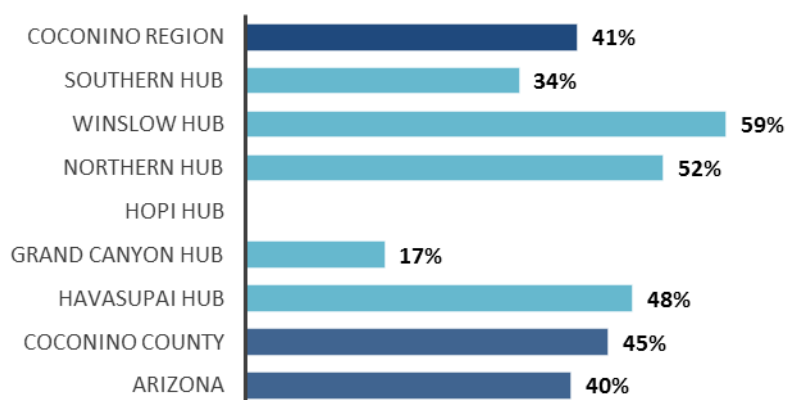
A map showing the locations of SNAP retailers is presented in Figure 38, below.

**Table 16. Children (0-5) receiving SNAP, 2010 to 2012**

GEOGRAPHY	POPULATION (AGES 0-5)	JANUARY 2010		JANUARY 2011		JANUARY 2012		CHANGE FROM 2010 TO 2012	
		NUMBER	PCT	NUMBER	PCT	NUMBER	PCT	NUMBER	PCT
Coconino Region	9,723	3,827	39%	3,655	38%	3,989	41%	162	+4%
Southern Hub	6,811	2,234	33%	2,112	31%	2,307	34%	73	+3%
Winslow Hub	966	549	57%	538	56%	574	59%	25	+5%
Northern Hub	970	469	48%	436	45%	501	52%	32	+7%
Hopi Hub									
Grand Canyon Hub	151	22	15%	22	15%	26	17%	4	+18%
Havasupai Hub	64	38	59%	36	56%	31	48%	-7	-18%
Coconino County	10,777	4,762	44%	4,536	42%	4,839	45%	77	+2%
Arizona	546,609	215,837	39%	204,058	37%	219,926	40%	4,089	+2%

Note: The "Change from 2010 to 2012" column shows the amount of increase or decrease, using 2010 as the baseline. The percent change between two given years is calculated using the following formula:  $\text{Percent Change} = \frac{\text{Number in 2012} - \text{Number in Year 2010}}{\text{Number in 2010}} \times 100$

Source: Arizona Department of Economic Security (2014). [SNAP data set]. Unpublished raw data received from the First Things First State Agency Data Request

**Figure 11. Percent of children (0-5) receiving SNAP in January 2012**

Arizona Department of Economic Security (2014). [SNAP data set]. Unpublished raw data received from the First Things First State Agency Data Request

## TANF

In contrast to SNAP, the number of children receiving TANF has decreased over the last several years. This is likely due to new eligibility rules and state budget cuts to the program, which have been enacted annually by state lawmakers. In addition, a 2011 rule which takes grandparent income into account has led to a decline in child-only TANF cases. Fiscal Year 2012 budget cuts limited the amount of time that families can receive TANF to two years.<sup>8</sup> Over the last decade federal TANF funds have also been increasingly re-directed from cash assistance, jobs programs and child care assistance to Child Protective Services. Federal cuts to funding to support TANF,

<sup>8</sup> Reinhart, M. K. (2011). Arizona budget crisis: Axing aid to poor may hurt in long run. The Arizona Republic: Phoenix.

including supplemental grants to high growth states, have also been enacted. It is estimated that there will be a deficit in Arizona TANF funds between 10 and 29 million dollars in Fiscal Year 2014, and projected to increase to 20 to 39 million dollars in Fiscal Year 2015.<sup>9</sup>

The table and figure below provide a visual representation of the decreasing proportion of households that have and are receiving TANF across the state and region.

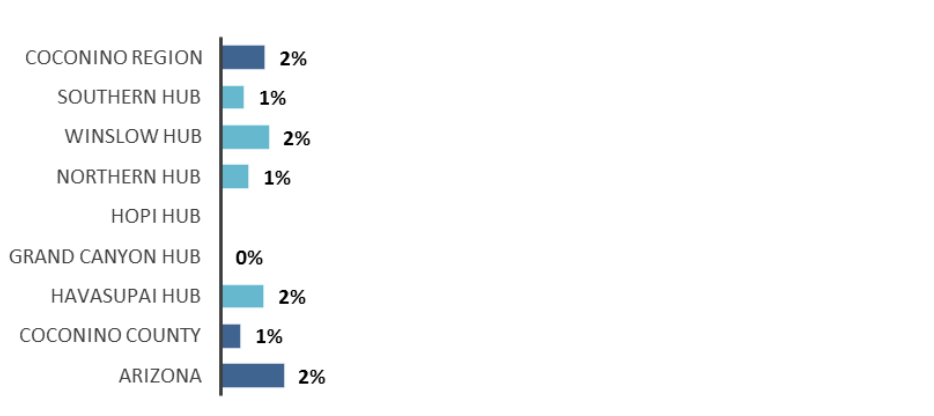
**Table 17. Children (0-5) receiving TANF, 2010 to 2012**

GEOGRAPHY	POPULATION (AGES 0-5)	JANUARY 2010		JANUARY 2011		JANUARY 2012		CHANGE FROM 2010 TO 2012	
		NUMBER	PCT	NUMBER	PCT	NUMBER	PCT	NUMBER	PCT
Coconino Region	9,723	232	2%	155	2%	155	2%	-77	-33%
Southern Hub	6,811	98	1%	51	1%	57	1%	-41	-42%
Winslow Hub	966	26	3%	14	1%	17	2%	-9	-36%
Northern Hub	970	10	1%	LT10	DS	10	1%	0	-5%
Hopi Hub									
Grand Canyon Hub	151	LT10	DS	0	0%	0	0%	DS	DS
Havasupai Hub	64	LT10	DS	0	0%	LT10	DS	DS	DS
Coconino County	10,777	143	1%	60	1%	77	1%	-66	-46%
Arizona	546,609	23,866	4%	13,450	2%	12,358	2%	-11,508	-48%

Arizona Department of Economic Security (2014). [TANF data set]. Unpublished raw data received from the First Things First State Agency Data Request

Note: The "Change from 2010 to 2012" column shows the amount of increase or decrease, using 2010 as the baseline. The percent change between two given years is calculated using the following formula:  $\text{Percent Change} = \frac{\text{Number in 2012} - \text{Number in 2010}}{\text{Number in 2010}} \times 100$

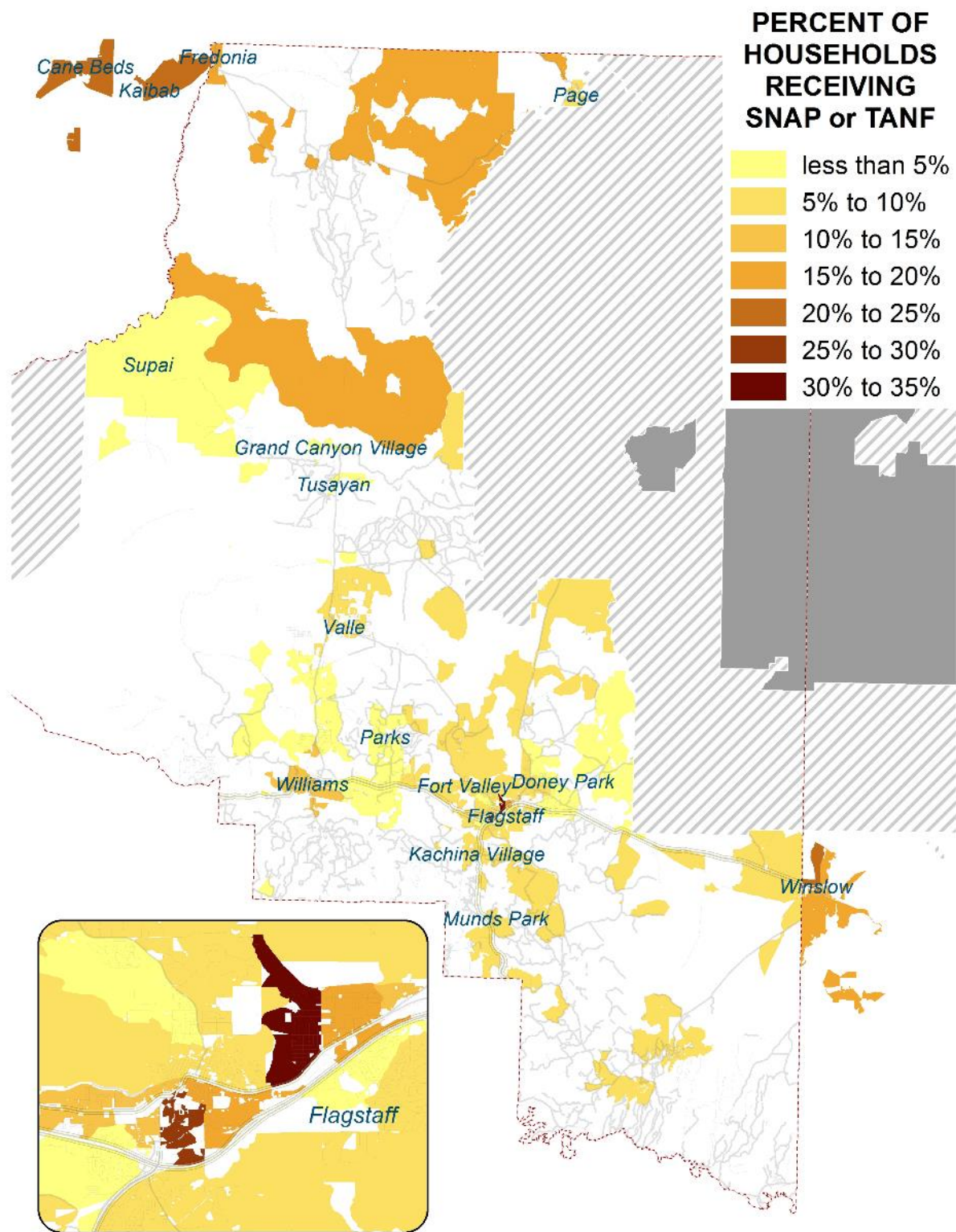
**Figure 12. Percent of children (0-5) receiving TANF in January 2012**



Arizona Department of Economic Security (2014). [TANF data set]. Unpublished raw data received from the First Things First State Agency Data Request

<sup>9</sup> The Arizona Children's Action Alliance. Growing up Poor in Arizona: State Policy at a Crossroads. May 2013

**Figure 13. Percent of households receiving SNAP or TANF, by census tract**



US Census (2013). American Community Survey 5-Year Estimates, 2008-2012, Table B22002. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>



### ***Women, Infants and Children (WIC)***

Arizona's WIC program is a federally-funded nutrition program which serves economically disadvantaged pregnant, postpartum, and breastfeeding women, as well as infants and children under the age of five. More than half of the pregnant and postpartum women, infants, and children under age five are estimated to be eligible for WIC in Arizona. In 2011, Arizona WIC served approximately 62 percent of the eligible population.<sup>10</sup> A primary goal of the WIC program is obesity prevention through the promotion of breastfeeding, nutritious diet, and physical activity. Changes to WIC in 2009 may in fact be affecting childhood obesity. In that year, WIC added vouchers for produce and also healthier items such as low-fat milk. Studies following the change have shown increases in purchases of whole-grain bread and brown rice,<sup>11</sup> and of reduced-fat milk,<sup>12</sup> and fewer purchases of white bread, whole milk, cheese and juice.<sup>13</sup>

In January 2012, almost 20 percent of young children in Coconino County were participating in WIC, lower than the state rate of 29 percent. As can be seen in Figure 14, WIC participation among infants and children in the county has been consistently lower than in the state from 2010 to 2012.

A map showing the locations of WIC retailers is presented in Figure 38, below.

**Table 18. WIC participation in Coconino County and the state, January 2011 and January 2012**

GEOGRAPHY	WIC PARTICIPANTS, JANUARY 2011			WIC PARTICIPANTS, JANUARY 2012		
	WOMEN	INFANTS AND CHILDREN (0-4)	PERCENT OF INFANTS AND CHILDREN (0-4)	WOMEN	INFANTS AND CHILDREN (0-4)	PERCENT OF INFANTS AND CHILDREN (0-4)
Coconino County	570	1,712	19%	575	1,738	19%
Arizona	40,819	134,871	30%	40,780	132,657	29%

Arizona Department of Health Services (2014). [WIC data set]. Unpublished raw data received from the First Things First State Agency Data Request

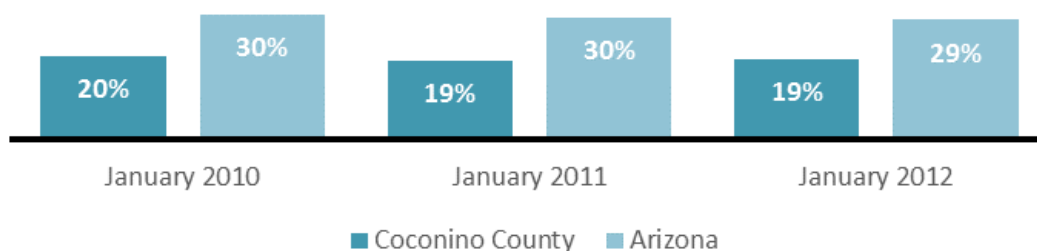
<sup>10</sup> Arizona Department of Health Services, Bureau of Nutrition and Physical Activity. (2013). WIC needs assessment.

<sup>11</sup> Andreyeva, T. & Luedicke, J. Federal Food Package Revisions Effects on Purchases of Whole-Grain Products. (2013). American Journal of Preventive Medicine, 45(4):422–429

<sup>12</sup> Andreyeva, T., Luedicke, J., Henderson, K. E., & Schwartz, M. B. (2013). The Positive Effects of the Revised Milk and Cheese Allowances in the Special Supplemental Nutrition Program for Women, Infants, and Children. Journal of the academy of nutrition and dietetics, Article in Press.

<sup>13</sup> Andreyeva, T., Luedicke, J., Tripp, A. S., & Henderson, K. E. (2013). Effects of Reduced Juice Allowances in Food Packages for the Women, Infants, and Children Program. Pediatrics, 131(5), 919-927.



**Figure 14. Percent of children (0-4) participating in WIC**

Arizona Department of Health Services (2014). [WIC data set]. Unpublished raw data received from the First Things First State Agency Data Request

### **Free and Reduced Lunch**

Free and Reduced Lunch is a federal assistance program providing free or reduced price meals at school for students whose families meet income criteria. These income criteria are 130 percent of the Federal Poverty Level (FPL) for free lunch, and 185 percent of the FPL for reduced price lunch. The income criteria for the 2014-2015 school year are shown below.

**Table 19. Free and reduced-price lunch, annual income limits**

HOUSEHOLD SIZE	FREE MEALS (130% FPL)	REDUCED PRICE MEALS (185% FPL)
2	\$20,449	\$29,101
3	\$25,727	\$36,612
4	\$31,005	\$44,123
Each Additional Person	+\$5,278	+\$7,511

Source: [www.fns.usda.gov/sites/default/files/2014-04788.pdf](http://www.fns.usda.gov/sites/default/files/2014-04788.pdf)

Except for the Flagstaff district, all of the school districts in the Coconino Region have at least half of their students eligible for free or reduced-price lunch.

**Table 20. Free and reduced-price lunch eligibility, by school district, October 2013**

SCHOOL DISTRICT NAME	PERCENT ELIGIBLE FOR FREE OR REDUCED LUNCH
Cedar Unified District	
Flagstaff Unified District	44%
Fredonia-Moccasin Unified District	69%
Grand Canyon Unified District	70%
Maine Consolidated School District	50%
Page Unified District	64%
Williams Unified District	65%
Winslow Unified District	64%
ARIZONA	58%

Arizona Department of Education (2014). Percentage of children approved for free or reduced-price lunches, October 2013. Retrieved from <http://www.azed.gov/health-nutrition/frpercentages/>

Note: Students living in the Chevelon Butte School District attend schools in the Heber-Overgaard, Pine Strawberry, or Payson districts.

On July 1, 2014, all schools in Arizona will be eligible for a new provision that allows schools in high-poverty areas to offer nutritious meals through the National School Lunch and School Breakfast Programs to all students at no charge. Called *community eligibility*, this tool will not only enable more children to receive free lunch and breakfast at schools, it also reduces the paperwork necessary for schools to provide free lunch and breakfast. Schools will now be able to use information they already have access to, such as the number of students in their school who are receiving SNAP or TANF, to demonstrate that their student population is largely made up of children from households with low incomes.<sup>14</sup> Arizona schools had the opportunity to apply for the Community Eligibility Provision in the spring of 2014, through the Arizona Department of Education.

## Educational Indicators

A national report released in 2012 by the Annie E. Casey Foundation ranked Arizona among the ten states with the lowest score for children's educational attainment.<sup>15</sup> More recent reports have illustrated similar concerns: Quality Counts, an annual publication of the Education Week Research Center, gave Arizona an overall K-12 education rank of 43 in 2013.<sup>16</sup> A 2013 Census Bureau report indicates that Arizona schools receive less in state funding than most states. In 2011, Arizona schools received about 37 percent of their funding from the state, compared to a national average of about 44 percent. The report also found that Arizona has one of the lowest per-pupil expenditures nationally. Arizona spent \$7,666 per pupil in 2011, below the national

<sup>14</sup> Center on Budget and Policy Priorities (CBPP) and the Food Research and Action Center (FRAC) (2013). Community Eligibility and Making High-Poverty Schools Hunger Free.

<sup>15</sup> Annie E. Casey Foundation. (2012). *Analyzing State Differences in Child Well-being*. O'Hare, W., Mather, M., & Dupuis, G.

<sup>16</sup> Education Week. (2014). *Quality Counts 2013 Highlights*.

average of \$10,560 for that year. Arizona also spent the lowest amount nationally on school administration in 2011.<sup>17</sup>

New legislation at the federal and state levels have the objective of improving education in Arizona and nationwide. These initiatives are described in the following sections.

## Educational Attainment

Several socioeconomic factors are known to affect student achievement, including income disparities, health disparities, and adult educational attainment.<sup>18</sup> Some studies have indicated that the level of education a parent has attained when a child is in elementary school can predict educational and career success for that child forty years later.<sup>19</sup>

Compared with the state, adults in the Coconino Region overall have slightly higher educational attainment. In the Southern Hub (which includes the university town of Flagstaff), about 37 percent of adults age 25 or older have a bachelor's degree or higher. In the other hubs, the college-education rates are lower, and lower than the statewide rate (27%)

Over the past few years, among mothers giving birth in the Coconino Region, the proportion with less than a high school education has been decreasing, from 18 percent in 2009 to 13 percent in 2012.

**Table 21. Educational achievement of adults (25 and older)**

GEOGRAPHY	Adults (ages 25+) without a high school diploma or GED	Adults (ages 25+) with a high school diploma or GED	Adults (ages 25+) with some college or professional training	Adults (ages 25+) with a bachelor's degree or more
Coconino Region	12%	21%	36%	31%
Southern Hub	10%	19%	34%	37%
Winslow Hub	25%	25%	39%	11%
Northern Hub	16%	27%	41%	16%
Hopi Hub				
Grand Canyon Hub	11%	32%	42%	15%
Havasupai Hub	39%	40%	15%	6%
Coconino County	13%	22%	34%	31%
Arizona	15%	24%	34%	27%

US Census (2013). American Community Survey 5-Year Estimates, 2008-2012, Table B15002. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

<sup>17</sup> Dixon, M. (2013). *Public Education Finances: 2011, Government Division Reports*.

<sup>18</sup> Annie E. Casey Foundation. (2013). *The First Eight Years: Giving kids a foundation for lifetime success*.

<sup>19</sup> Merrill, P. Q. (2010). Long-term effects of parents' education on children's educational and occupational success: Mediation by family interactions, child aggression, and teenage aspirations. *NIH Public Manuscript*.

**Figure 15. Births in the Coconino Region, by mother's educational achievement**

<b>2009</b>	Less than high school 18%	High school or GED 32%	More than high school 50%
<b>2010</b>	Less than high school 17%	High school or GED 31%	More than high school 52%
<b>2011</b>	Less than high school 15%	High school or GED 35%	More than high school 50%
<b>2012</b>	Less than high school 13%	High school or GED 34%	More than high school 53%

Arizona Department of Health Services (2014). [Vital Statistics data set]. Unpublished raw data received from the First Things First State Agency Data Request

## Early Education and School Readiness

The positive impacts of quality early education have been well-documented. Previous research indicates that children who attend high-quality preschools have fewer behavior problems in school later on, are less likely to repeat a grade, are more likely to graduate high school, and have higher test scores.<sup>20</sup> Enrollment in preschool provides children with social, emotional and academic experiences that optimally prepare them for entry into kindergarten. In 2012 in Arizona, an estimated two-thirds of children aged three and four were not enrolled in preschool (compared to half of children this age nationally). In 2013, Arizona was ranked third from last nationally in the number of preschool aged children enrolled in preschool.<sup>21</sup> In the Coconino Region, the numbers are a bit higher: 43 percent of three and four year olds in the region are estimated to be enrolled in early education settings (see Table 22).

<sup>20</sup> Annie E. Casey Foundation. (2013). *The First Eight Years: Giving kids a foundation for lifetime success*.

<sup>21</sup> Children's Action Alliance.

**Table 22. Estimated number and percent of children (3-4) enrolled in preschool or kindergarten**

<b>GEOGRAPHY</b>	<b>ESTIMATED NUMBER OF CHILDREN (AGES 3-4)</b>	<b>ESTIMATED PERCENT OF CHILDREN (AGES 3-4) ENROLLED IN NURSERY SCHOOL, PRESCHOOL, OR KINDERGARTEN</b>
Coconino Region	3,253	43%
Southern Hub	2,274	44%
Winslow Hub	316	31%
Northern Hub	349	51%
Hopi Hub		
Grand Canyon Hub	53	xx
Havasupai Hub	21	xx
Coconino County	1,691	46%
Arizona	62,921	34%

US Census (2013). American Community Survey 5-Year Estimates, 2008-2012, Table B14003. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Note: An entry of xx indicates that an estimate cannot be reported, because of the small sample size.

Arizona reduced funding for kindergarten from full-day to half-day in 2010, and eliminated funds for pre-K programs in 2011. First Things First funds a limited number of preschool scholarships across the state, including \$13.7 million for Pre-K Scholarships and \$39 million for Quality First Scholarships in FY 2013.<sup>22</sup>

First Things First has developed Arizona School Readiness Indicators, which aim to measure and guide progress in building an early education system that prepares Arizona's youngest citizens to succeed in kindergarten and beyond. The Arizona School Readiness Indicators are: children's health (well-child visits, healthy weight, and dental health); family support and literacy (confident families); and child development and early learning (school readiness, quality early education, quality early education for children with special needs, affordability of quality early education, developmental delays identified in kindergarten, and transition from preschool special education to kindergarten).<sup>23</sup>

## **The Build Initiative**

The BUILD Initiative<sup>24</sup> is a nationwide effort that helps states create comprehensive early childhood systems with programs, services and policies that address children's health, mental health and nutrition, early care and education, family support, and early intervention. Arizona is one of ten BUILD state partners, which receive funding and technical support to develop or improve early childhood services, programs and systems, and identify and assess measurable outcomes of this work. In Arizona, the BUILD Arizona Steering Committee is working to identify priorities across five workgroups; Communications, Early Learning, Professional Development,

<sup>22</sup> The Build Initiative. Arizona State Profile.

<sup>23</sup> First Things First. *Arizona School Readiness Indicators*.

<sup>24</sup> [www.buildinitiative.org](http://www.buildinitiative.org)

Health and Early Grade Success. This work to date has resulted in the *Build Arizona: Strategic Blueprint*,<sup>25</sup> which outlines suggested key priorities for the early childhood system in Arizona for 2013-2016. These priorities are listed below.

Under Policy Research and Development:

- Expand access to high quality, voluntary preschool for three and four year olds;
- Assess current capacity for high quality, voluntary full day Kindergarten;
- Maintain and expand research-based home visiting programs in Arizona as a core element of a statewide early intervention program.

Under Coordination and Convening Leadership/Support:

- Implement and expand the Statewide Early Childhood (0-8) Professional Development System Strategic Plan;
- Convene stakeholders on early childhood nutrition, wellness and obesity prevention to identify linkages and connections to create a more integrated statewide strategy;
- Participate in state-level partnership to enhance the screening, referral and early intervention system.

Under System Enhancement/Alignment:

- Utilizing a collective impact model, continue to assess and map system capacity, identify gaps and opportunities for alignment and leadership roles, and further strengthen the Arizona early childhood system.

## Standardized Test Scores

The primary in-school performance of current students in the public elementary schools in the state is measured by the Arizona Instrument to Measure Standards (AIMS). The AIMS is required by both state and federal law, and is used to track how well students are performing compared to state standards. Performance on the AIMS directly affects students' future progress in school. As of the 2013-2014 school year, Arizona Revised Statute §15-701 (also known as Move on When Reading) states that a student shall not be promoted from the third grade "if the pupil obtains a score on the reading portion of the Arizona's Instrument to Measure Standards (AIMS) test...that demonstrates that the pupil's reading falls far below the third-grade level." Exceptions exist for students with learning disabilities, English language learners, and those with reading deficiencies. The AIMS-A (Arizona's Instrument to Measure Standards Alternate) meets federal requirements for assessing students who have significant cognitive disabilities.

In order for children to be prepared to succeed on tests such as the AIMS, research shows that early reading experiences, opportunities to build vocabularies and literacy rich environments are the most effective ways to support the literacy development of young children.<sup>26</sup>

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<sup>25</sup> [buildaz.files.wordpress.com/2013/10/build-arizona-blueprint.pdf](http://buildaz.files.wordpress.com/2013/10/build-arizona-blueprint.pdf)

As shown in Tables 23 and 24, and Figure 16, the third graders in Coconino County had somewhat lower rates of passing the math and reading sections of the AIMS test, compared to third graders statewide. In math, less than half of the third graders in the Maine and Page districts passed the AIMS. In reading, the passing rate was less than 50 percent for the Page third graders. Importantly, rates of children who fall far below grade level in reading are particularly high in both Maine and Page, putting third graders there at higher risk of grade retention.

**Table 23. Results of the third-grade AIMS (Math), 2013**

LOCAL EDUCATION AGENCY (LEA)	PERCENT FALLS FAR BELOW	PERCENT APPROACHES	PERCENT MEETS	PERCENT EXCEEDS	PERCENT PASSING
Cedar Unified District					
Flagstaff Unified District	9%	23%	46%	23%	69%
Fredonia-Moccasin Unified District	0%	36%	45%	18%	64%
Grand Canyon Unified District	0%	45%	52%	3%	55%
Maine Consolidated School District	23%	38%	31%	8%	38%
Page Unified District	18%	36%	38%	8%	46%
Williams Unified District	3%	30%	55%	12%	67%
Winslow Unified District	5%	28%	46%	21%	67%
All Coconino County Charter Schools	8%	26%	43%	23%	65%
Coconino County (All charter and district schools)	9%	27%	44%	20%	64%
Arizona (All charter and district schools)	9%	23%	43%	26%	68%

Arizona Department of Education (2013). AIMS and AIMS A 2013. Retrieved from [www.azed.gov/research-evaluation/aims-assessment-results](http://www.azed.gov/research-evaluation/aims-assessment-results)

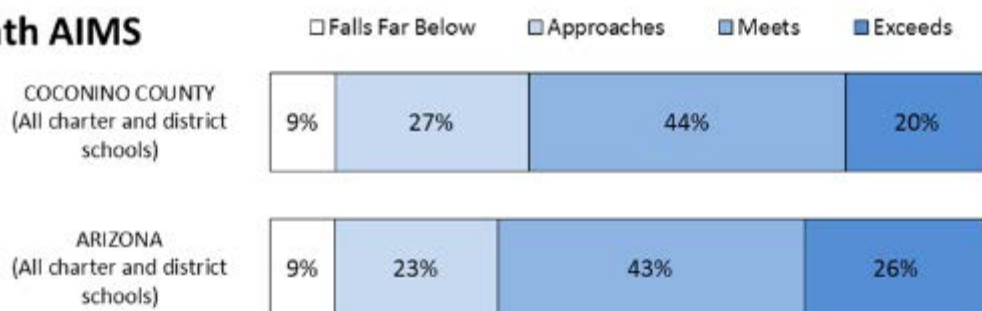
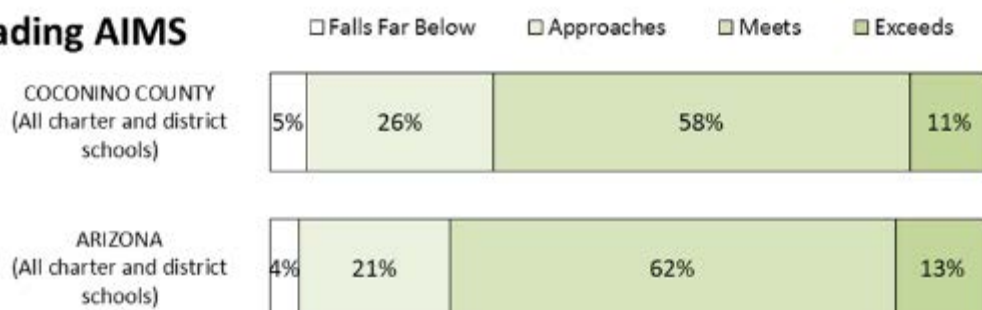
<sup>26</sup> First Things First. (2012). *Read All About It: School Success Rooted in Early Language and Literacy*.



**Table 24. Results of the third-grade AIMS (Reading), 2013**

LOCAL EDUCATION AGENCY (LEA)	PERCENT FALLS FAR BELOW	PERCENT APPROACHES	PERCENT MEETS	PERCENT EXCEEDS	PERCENT PASSING
Cedar Unified District					
Flagstaff Unified District	4%	23%	62%	11%	73%
Fredonia-Moccasin Unified District	0%	23%	73%	5%	77%
Grand Canyon Unified District	0%	45%	55%	0%	55%
Maine Consolidated School District	15%	15%	54%	15%	69%
Page Unified District	12%	39%	46%	3%	49%
Williams Unified District	6%	24%	61%	9%	70%
Winslow Unified District	3%	20%	66%	11%	78%
All Coconino County Charter Schools	5%	19%	55%	21%	77%
Coconino County (All charter and district schools)	5%	26%	58%	11%	69%
Arizona (All charter and district schools)	4%	21%	62%	13%	75%

Arizona Department of Education (2013). AIMS and AIMS A 2013. Retrieved from [www.azed.gov/research-evaluation/aims-assessment-results](http://www.azed.gov/research-evaluation/aims-assessment-results)

**Figure 16. Results of the third-grade Arizona Instrument to Measure Standards (AIMS), 2013****Math AIMS****Reading AIMS**

Arizona Department of Education (2013). AIMS and AIMS A 2013. Retrieved from <http://www.azed.gov/research-evaluation/aims-assessment-results/>

Living in poverty decreases the likelihood of completing high school: a recent study found that 22 percent of children who have lived in poverty do not graduate from high school, compared with six percent of children who have not lived in poverty. Third-grade reading proficiency has

also been identified as a predictor of timely high school graduation. One in six third graders who do not read proficiently will not graduate from high school on time, and the rates are even higher (23%) for children who were both not reading proficiently in third grade and living in poverty for at least a year.<sup>27</sup> This underscores the importance of early literacy programming in the early childhood system, especially for low-income families and families living in poverty.

Table 25 shows the recent graduation<sup>28</sup> and drop-out<sup>29</sup> rates for the region's school districts. The graduation rate is quite high in the Fredonia-Moccasin district (95%), and all districts except Grand Canyon have graduation rates higher than the state average (77%).

**Table 25. Graduation and drop-out rates**

GEOGRAPHY	PERCENT GRADUATED (2012)	DROPOUT RATES (2012-2013)
Cedar Unified District		
Flagstaff Unified District	77%	4%
Fredonia-Moccasin Unified District	95%	1%
Grand Canyon Unified District	67%	2%
Page Unified District	78%	2%
Williams Unified District	86%	2%
Winslow Unified District	81%	5%
ARIZONA	77%	4%

Arizona Department of Education (2014). 2012 Four Year Graduation Rate Data. Retrieved from <http://www.azed.gov/research-evaluation/graduation-rates/>; Arizona Department of Education (2014). 2012-2013 Dropout Rates. Retrieved from <http://www.azed.gov/research-evaluation/dropout-rate-study-report/>

## Common Core/Early Learning Standards

The Common Core State Standards Initiative is a nationwide initiative which aims to establish consistent education standards across the United States in order to better prepare students for college and the workforce. The initiative is sponsored by the Council of Chief State School Officers (CCSO) and the National Governors Association (NGA). Common Core has two domains of focus: English Language Arts/Literacy (which includes reading, writing, speaking and listening, language, media and technology), and Mathematics (which includes mathematical practice and mathematical content). The initiative provides grade-by-grade standards for grades K-8, and high school student standards (grades 9-12) are aggregated into grade bands of 9-10 and 11-12.

<sup>27</sup> Hernandez, D. (2011). Double jeopardy: How third-grade reading skills and poverty influence high school graduation. *The Annie E. Casey Foundation*.

<sup>28</sup> The four-year graduation rate consists of the number of students who graduate with a regular high school diploma within four years divided by the number of students in the cohort of the graduating class. A cohort consists of the number of students who enter 9th grade for the first time, adjusted each year by adding any students who transfer into the cohort and subtracting any students who transfer out of the cohort, emigrate out of the US, or die. Source: US Department of Education (2008). High School Graduation Rate: Non-regulatory guidance.

<sup>29</sup> The drop-out rate is calculated by dividing the number of dropping out by the number currently enrolled in school. Students who are enrolled at any time in the school year but are not enrolled at the end of the school year are counted as drop-outs if they did not transfer to another school, graduate, or die. Source: Arizona Department of Education (2014). 2012-2013 Dropout Rates.

To date, 44 states and the District of Columbia have adopted the Common Core State Standards. Arizona adopted the standards in June of 2010 with the creation of Arizona's College and Career Ready Standards (AZCCRS). A new summative assessment system which reflects AZCCRS will be implemented in the 2014-2015 school year. More information about the Common Core State Standards Initiative can be found at [www.corestandards.org](http://www.corestandards.org), and additional information about AZCCRS can be found at <http://www.azed.gov/azccrs>.

### **Move on When Ready**

The Arizona Move on When Ready Initiative is a state law (A.R.S. Title 15, Chapter 7, Article 6) and is part of the National Center on Education and the Economy's Excellence For All pilot effort. Move on When Ready is a voluntary performance-based high school education model that aims to prepare all high school students for college and the workforce.

Key components of the Move on When Ready model include offering students individualized education pathways; moving away from a "one-size-fits-all" educational approach; and a new performance-based diploma called the Grand Canyon Diploma that can be awarded voluntarily to students. Grand Canyon Diplomas have been available since the 2012-2013 academic year.

They can be awarded to high school students who have met the subject area requirements specified by the statute and who also meet college and career qualification scores on a series of exams. After a student earns a Grand Canyon Diploma, he or she can opt to remain in high school, enroll in a full-time career and technical education program, or graduate from high school with the Grand Canyon Diploma and attend a community college.

Schools may participate in Move on When Ready on a voluntary basis. As of April 2014, the Center for the Future of Arizona reported that 38 schools were participating in Move on When Ready. Only one of these schools, BASIS Flagstaff, is within the Coconino Region.

## The Early Childhood System: Detailed Descriptions of Assets and Needs

### Quality and Access

#### Early Care and Education

Children who take part in high-quality early education programs have better success in school, are less likely to enter the criminal justice system<sup>30</sup> and have better long-term outcomes into adulthood as seen through higher high school graduation rates, increased employment opportunities and earnings, and lower rates of depression and drug use.<sup>31</sup> Studies of the cost-effectiveness of investing in early education (pre-kindergarten) programs show a substantial return on investment in the long term through increases in economic productivity and decreases in expenses to the criminal justice system.<sup>32</sup>

#### Center and Home-based Care

In the Coconino Region, there are 63 regulated child care providers, according to data collected by the Department of Economic Security (DES) and the Child Care Resource and Referral (CCR&R). Table 26 summarizes the types and locations of these centers. (Note that Head Start centers will be discussed separately later in this report.) Fifteen of these providers are DES-certified homes, and 47 are ADHS-licensed child care centers. In addition, there is one regulated individual care provider. The total capacity for these 63 providers is 3,550 children. (Note that not all of this capacity is for children under the age of six. The capacity figures include older children, also.)

**Table 26. Numbers of early care and education centers and homes in the Coconino Region**

GEOGRAPHY	CHILD CARE CENTERS		FAMILY CHILD CARE		NANNY/INDIVIDUAL		TOTAL CAPACITY
	NUMBER	CAPACITY	NUMBER	CAPACITY	NUMBER	CAPACITY	
Coconino Region	47	3,464	15	82	1	4	3,550
Southern Hub	37	2,809	11	60	1	4	2,873
Winslow Hub	5	239	4	22	-	-	261
Northern Hub	4	257	-	-	-	-	257
Hopi Hub							
Grand Canyon Hub	1	159	-	-	-	-	159
Havasupai Hub	-	-	-	-	-	-	-
Coconino County	42	3,255	11	60	1	4	3,319
Arizona	1,907	113,468	574	3,007	22	88	116,563

Arizona Department of Economic Security (2014). [Child care Resource and Referral Guide]. Unpublished raw data received from the First Things First State Agency Data Request.

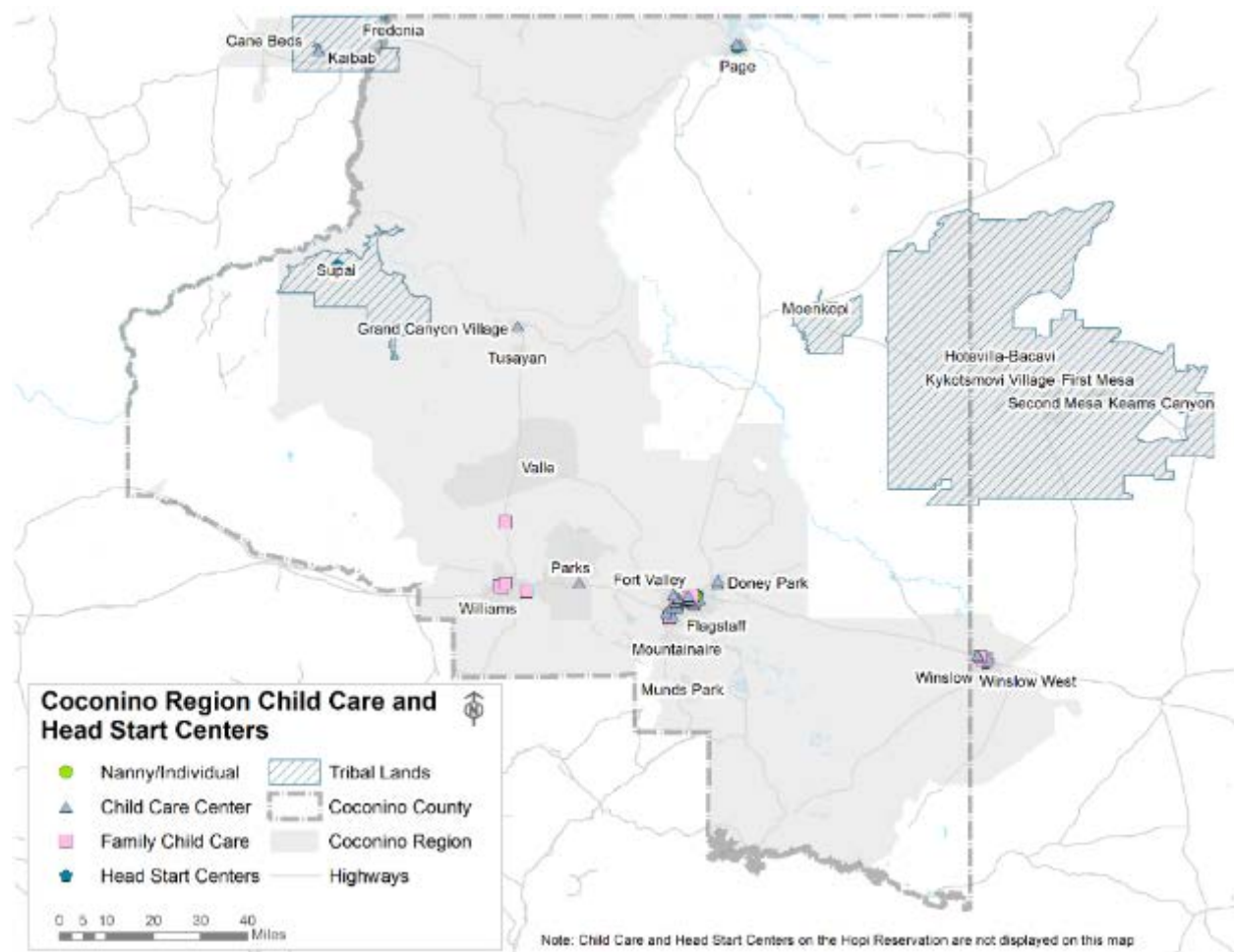
Note: This table includes only state-licensed facilities. It may not include all tribally run or licensed centers and homes.

<sup>30</sup> Lynch, R. (2007). *Enriching Children, Enriching the Nation* (Executive Summary). Washington, DC: Economic Policy Institute.

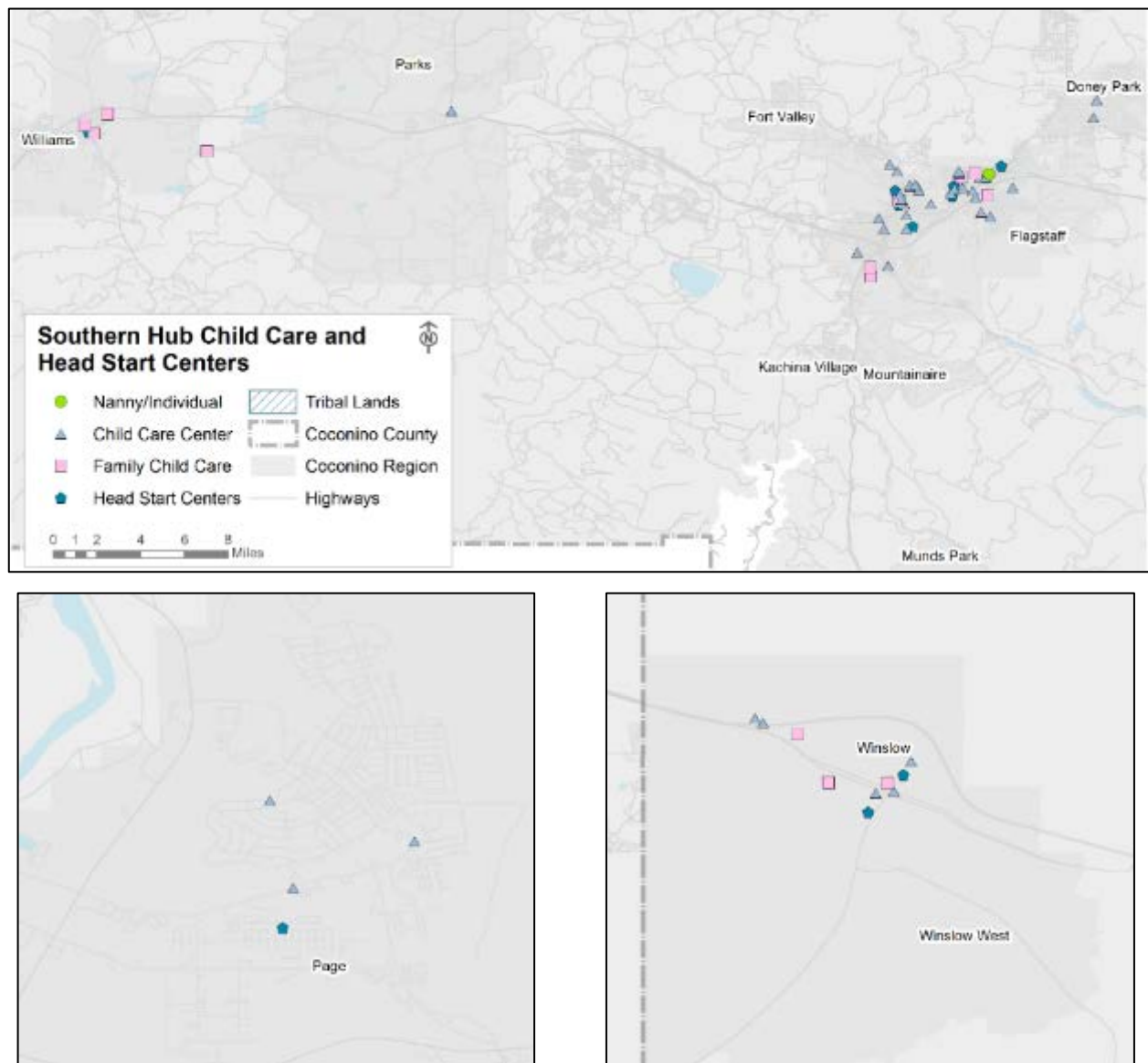
<sup>31</sup> The Annie E Casey Foundation. *The first eight years; giving kids a foundation for lifetime success*. (2013).

<sup>32</sup> Castelazo, M. (2014). *Supporting Arizona Women's Economic Self-Sufficiency. An Analysis of Funding for Programs that Assist Low-income Women in Arizona and Impact of those Programs*. Report Produced for the Women's Foundation of Southern Arizona by the Grand Canyon Institute.

**Figure 17. Geographic distribution of child care providers in the Coconino Region**



**Figure 18. Geographic distribution of child care providers in the Flagstaff area, Page, and Winslow**



### **Quality First**

Quality First, a signature program of First Things First, is a statewide continuous quality improvement and rating system for child care and preschool providers, with a goal to help parents identify quality care settings for their children.

Quality First provides financial and technical support for child care providers to help them raise the quality of care they provide young children. Program components of Quality First include: coaching and technical assistance, assessments, TEACH scholarships, child care health consultation, child care scholarships, and financial incentives to assist in making improvements. The Quality First Rating Scale incorporates measures of evidence-based predictors of positive child outcomes. Based on these, a center is given a star rating that ranges from 1-star—where the provider demonstrates a commitment to examine practices and improve the quality of care beyond regulatory requirements—to 5-star, where providers offer lower ratios and group size, higher staff qualifications, a curriculum aligned with state standards, and nurturing relationships between adults and children. Quality First providers with higher star ratings receive higher financial incentives and less coaching while those with lower ratings receive more coaching and lower financial incentives.

Table 27 describes the rating scale as defined by First Things First.

**Table 27. Quality First rating scale**

NUMBER OF STARS	LABEL	DESCRIPTION
One	Rising Star	Demonstrates a commitment to examine practices and improve the quality of care beyond regulatory requirements.
Two	Progressing Star	Demonstrates a commitment to provide environments that are progressing in the ability to foster the health, safety and development of young children.
Three	Quality	Demonstrates a level of quality that provides an environment that is healthy and safe with access to developmentally appropriate materials. Curriculum is aligned with state standards. Interactions between adults and children are enhanced. Staff qualifications exceed state regulatory requirements.
Four	Quality Plus	Demonstrates a level of quality that provides an environment of developmentally appropriate, culturally sensitive learning experiences. Curriculum is aligned with state standards. Relationships between adults and children are nurturing and promote language development and reasoning skills.
Five	Highest Quality	Demonstrates a level of quality that provides an environment of lower ratios/group size and higher staff qualifications that supports significant positive outcomes for young children in preparation for school. Curriculum is aligned with state standards and child assessment. Relationships between adults and children are nurturing and promote emotional, social, and academic development.

Source: "Measuring quality in early childhood education," FTF, April 2012.

According to the Quality First website ([qualityfirstaz.com](http://qualityfirstaz.com)), there were 23 Quality First sites in the Coconino Region: 14 in the Southern Hub (Flagstaff, Williams, and Parks), three in the



Winslow Hub, three in the Northern Hub (Page and Fredonia), and one each in the Hopi, Grand Canyon, and Havasupai hubs. These last three are located in Kykotsmovi, Grand Canyon, and Supai.

### **Local Education Authority Preschools**

Under the No Child Left Behind Act (NCLB), Title I provides preschool, elementary, and secondary schools with financial assistance in order to assist all children, including educationally disadvantaged children, in meeting the state's academic standards. Title I funding is intended to assist schools in administering supplementary programs, such as those designed to increase parent involvement, additional instructional services, and school wide reform efforts.<sup>33</sup> The U.S. Department of Education encourages the use of these funds to support early childhood education, recognizing that this is an area that often has not had sufficient resources.<sup>34</sup> A number of school districts in Coconino County are using these funds to provide a range of programmatic and support services for young children in the region. In the Grand Canyon and Fredonia school districts, Title I services are provided by the Head Start programs, not the schools.

**Table 28. Numbers of Local Education Authority preschools**

PLACE	NUMBER OF PRESCHOOL PROGRAMS	PRESCHOOL STUDENTS ENROLLED
Coconino Region total	11	approx 195
Flagstaff	6	42
Page	2	109
Parks	1	13
Williams	1	LT10
Winslow	1	25
All Arizona school districts	220	10,063

Arizona Department of Education (2014). October 1, 2013, Enrollment.

Retrieved from [www.azed.gov/research-evaluation/arizona-enrollment-figures/](http://www.azed.gov/research-evaluation/arizona-enrollment-figures/)

Note Fewer than 10 students were enrolled in the Williams Elementary preschool.

### **Head Start/Early Head Start**

Head Start is a comprehensive early childhood education program for pre-school aged children whose families meet income eligibility criteria. Arizona residents who are homeless, in foster care, or receiving TANF or SSI may also be eligible for Head Start even if they do not meet the income eligibility criteria. Eligibility is determined by Head Start program staff. Some programs enroll a percentage of children from families with incomes above the Poverty Guidelines as well. Head Start addresses a wide range of early childhood needs such as education and child development, special education, health services, nutrition, and parent and family development. There are nine non-tribal Head Start centers in the Coconino Region: five in Flagstaff, and one

<sup>33</sup> Arizona Department of Education, 2011.

<sup>34</sup> Using Title I of ESEA for Early Education

each in Williams, Page, Fredonia, and Winslow. In addition, there are four Hopi Head Start centers and one Havasupai Head Start center.

Early Head Start is a similar program targeted at families with younger children. Arizona's Early Head Start Programs are targeted at low-income pregnant women and women with children aged birth to three years. Each Early Head Start program determines its own eligibility criteria, although general eligibility criteria are similar to Head Start. The goal of the program is to aid young mothers in being better teachers and caregivers for their children, and to enhance the development of participating children. Both home-based and center-based care is provided by the Early Head Start Program. There are four non-tribal Early Head Start Centers in the region: three in Flagstaff and one in Winslow.

The non-tribal Head Start and Early Head Start centers in the region are operated by the Northern Arizona Council of Governments (NACOG), which provides Head Start services to Coconino, Navajo, Apache, and Yavapai counties. Data provided by NACOG and by the tribal Head Starts show that the Head Start and Early Head Start centers enrolled a total of 947 children (65 in Early Head Start and 882 in the regular program) in program year 2012-13.

**Table 29. Enrollment in Head Start and Early Head Start**

GEOGRAPHY	2010 CENSUS POPULATION (AGES 3-4)	HEAD START		2010 CENSUS POPULATION (AGES 0-2)	EARLY HEAD START	
		CHILDREN ENROLLED			CHILDREN ENROLLED	
Coconino Region	3,253	882	27%	4,799	65	1%
Southern Hub	2,274	417	18%	3,363	46	1%
Winslow Hub	316	141	45%	480	19	4%
Northern Hub	349	74	21%	450	-	-
Hopi Hub						
Grand Canyon Hub	53	-	-	76	-	-
Havasupai Hub	21	20	95%	36	-	-
Coconino County	3,595	511	14%	5,350	46	1%

Northern Arizona Council of Governments (2013). *Annual Report 2012-2013*. Retrieved from [http://www.nacog.org/index.cfm?fuseaction=dep\\_page&page\\_id=56&dept\\_id=5](http://www.nacog.org/index.cfm?fuseaction=dep_page&page_id=56&dept_id=5); US Department of Health & Human Services, Office of Head Start (2014). *Head Start PIR Data Extract*. Retrieved from <https://hses.ohs.acf.hhs.gov/pir/>

### Cost of Child Care

In Arizona in 2012, the average annual cost of center-based full-time child care for an infant was \$8,671, and for a four year old, \$7,398.<sup>35</sup> The average cost of a year's tuition and fees at an Arizona public college was only 10 percent more. The costs of child care increase with more than one child in a household, with the average annual cost for one infant and one four year old at \$16,069. Family-based providers cost slightly less, with the annual cost for an infant at \$6,641 and for a four year old at \$6,285. Arizona was ranked 16th in the nation for least-affordable child care for an infant in a center, and 14th for least affordable for a four year old in a center. At the state level, to pay for center-based child care for a four year old, a family of three at the federal poverty level would spend nearly 40 percent of their annual income, while

<sup>35</sup> Child Care Aware of America. "Parents and the High Cost of Child Care," 2013 Report.

a family of three at 200 percent of the federal poverty level would spend almost 20 percent of their annual income. Table 30 shows the average cost of child care in a child care center for children of different ages in Coconino County. These are estimates for one child in care, so needing child care for multiple children would increase these costs.

**Table 30. Median daily cost of child care for one child (0-5)**

GEOGRAPHY	TYPE OF CARE	CHILDREN UNDER 1	CHILDREN 1-2 YEARS OLD	CHILDREN 3-5 YEARS OLD
Coconino County	Full-time	\$ 30.00	\$ 24.00	\$ 22.00
	Part-time	\$ 24.42	\$ 20.00	\$ 17.00
Arizona	Full-time	\$ 41.00	\$ 36.98	\$ 32.00
	Part-time	\$ 32.56	\$ 29.00	\$ 22.50

Arizona Department of Economic Security (2012). *Child Care Market Rate Survey 2012*. Retrieved from <https://www.azdes.gov/InternetFiles/Reports/pdf/MarketRateSurvey2012.pdf>

Table 31 shows the average estimated cost of child care in a child care center by percent of median family income in five cities in the region, as well as in Coconino County and the state. The average cost for full-time center-based care in the region is likely to exceed the Department of Health and Human Services recommendation that parents spend no more than 10 percent of their family income on child care. Because their median income tends to be lower (see Table 12, above), the percent of income spent on child care by the typical single parent could easily be about twice as high.

**Table 31. Cost of full-time child care in a child care center, as a percent of median family income**

CITY OR TOWN	MEDIAN FAMILY INCOME	CHILDREN UNDER 1	CHILDREN 1-2 YEARS OLD	CHILDREN 3-5 YEARS OLD
Flagstaff	\$67,302	11%	9%	9%
Winslow	\$59,868	12%	10%	10%
Page	\$72,475	10%	8%	8%
Fredonia	\$43,375	17%	14%	14%
Williams	\$47,143	15%	13%	13%
Arizona	\$59,563	17%	15%	13%
Coconino County	\$59,082	12%	10%	10%

US Census (2013). *American Community Survey 5-year estimates, 2008-2012*. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>; Arizona Department of Economic Security (2012). *Child Care Market Rate Survey 2012*. Retrieved from <https://www.azdes.gov/InternetFiles/Reports/pdf/MarketRateSurvey2012.pdf>

*Note: Median income data is available at the city level, but average cost of child care is available at the state and county levels only. These calculations were made with city-level median income data and county-level child care cost data. Child care cost figures assume that child care is used 240 days per year.*

## Professional Development

Formal educational attainment of Early Childhood Education (ECE) staff is linked with improved quality of care in early care and education settings. According to the 2012 Early Care and Education Workforce Survey, the number of assistant teachers obtaining a credential or degree increased from 21 percent in 2007 to 29 percent in 2012, and the percentage of all teachers holding a college degree rose from 47 to 50 percent over the same time period. During that

same period however, the wages of assistant teachers, teachers and administrative directors working in licensed early care and education settings across the state decreased when adjusted for inflation. Those working in early care and education settings in Arizona, make only about half the annual income of kindergarten and elementary school teachers across the state.<sup>36</sup> It is likely that these issues affect retention and turnover of early care and education professionals across the state.

## **Scholarships**

First Things First offers Teacher Education and Compensation Helps (TEACH) Scholarships to support child care providers in their pursuit of their CDA certification or Associate of Arts (AA) degree. Through participation in TEACH, child care providers (center or home-based), directors, assistant directors, teachers, and assistant teachers working in licensed or regulated private, public and tribal programs are able to participate in 9 to 15 college credits of college coursework leading to their CDA (Child Development Associates) credential or AA degree. A Bachelor's Degree model of the TEACH program is also currently being piloted in one FTF Region. As of March 2014, there were 12 child care professionals in the Coconino Region who had received TEACH scholarships to take coursework leading to an associate's degree.

The Professional REWARD\$ program is a statewide First Things First initiative offering a financial incentive to child care professionals working with children birth through age five. Child care professionals working at a regulated child care center, group or family child care home, who have completed at least six credit hours of college coursework in Early Childhood Education, Early Childhood Special Education, or Child Development, who work 30 hours per week providing care to children ages birth to five years, who have at least one year of continuous employment at their current place of work, and who earn less than \$20 per hour may qualify for this program. Approved child care professionals will receive a "reward" from between \$300 and \$2,000 based on their education. According to the region's 2015 funding plan, as of fiscal year 2014, 54 incentive awards were contracted as part of the Professional REWARD\$ program in the Coconino Region.<sup>37</sup>

## **Opportunities for Professional Development**

Three schools offering in-person certification and degree programs in early childhood are located in the Coconino Region: Coconino Community College, Northland Pioneer College (Winslow Campus and Hopi Center) and Northern Arizona University (see Table 32 below). All

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<sup>36</sup> Arizona Early childhood Development and Health Board (First Things First). (2013). Arizona's Unknown Education Issue: Early Learning Workforce Trends

<sup>37</sup> Coconino FTF Regional Partnership Council. (2014). SFY 2015 Regional Funding Plan. Retrieved from <http://www.azftf.gov/RPCCouncilPublicationsCenter/Funding%20Plan%20-%20Coconino%20SFY15.pdf>

other available early education certificate or degree opportunities are limited to on-line course-work for residents of the Coconino Region.

**Table 32. Availability of local certification, credentials, or degree programs**

College	Locations	Degrees Offered
Coconino Community College	Page, Lone Tree, 4th Street	Certificate: Early Childhood Education AA: Elementary Education
Northland Pioneer College	Winslow Campus, Hopi Center	Certificate: Early Childhood Management, Family Care, Infant/Toddler, Preschool, Special Needs AAS: Early Childhood Management, Family Care, Infant/Toddler, Preschool, Special Needs AGS: Early Childhood Management, Early Childhood Infant/Toddler, Early Childhood Preschool, Special Needs Educational Assistant
Northern Arizona University	Flagstaff	Certificate: Early Childhood Education BAS: Early Childhood Education BS: Early Childhood Education Masters of Ed: Early Childhood Education Masters of Ed: With Certification in Early Childhood Special Education

<http://www.coconino.edu/list-of-degrees-and-certificates/414-early-childhood-education-certificate;>

<http://www.npc.edu/course/early-childhood-development;>

<http://nau.edu/search.aspx?q=early+childhood+education>

*Note: There has been an AAS program in Early Childhood Education at Coconino Community College, but it will end after the current students complete the program.*

Other early childhood education professional development opportunities are available in the region. One is the DES Early Childhood Professional Training,<sup>38</sup> offered through Yavapai College. This training is a no-cost, 60-hr course covering the basics of child development, nutrition, early reading and math activities and child-care licensing to prepare participants to enter the early care and education workforce. The grant provides up to 15, 60-hour workshops in 11 counties in Arizona each year. Upon completion, students can earn college credits. Arizona Child care Resource and Referral also publishes a quarterly newsletter on early childhood training opportunities including those available in the Coconino Region.<sup>39</sup> The most recent newsletter<sup>40</sup> listed 17 trainings in the region, in Flagstaff and Page.

Additional support in the region for child care providers seeking professional development support is the Professional Career Pathways Project (PCPP).<sup>41</sup> This program, sponsored by DES

<sup>38</sup> <http://www.yc.edu/v5content/academics/divisions/social-behavioral-organizational-sciences/des.htm>

<sup>39</sup> <http://www.arizonachildcare.org/providers/professional-development.html>

<sup>40</sup> <http://www.arizonachildcare.org/pdf/quarterly.pdf>

<sup>41</sup> <http://www.yc.edu/v5content/academics/divisions/social-behavioral-organizational-sciences/des.htm>

provides tuition and textbook support for early childhood education classes for those working as child care providers, and is available for coursework taken at Coconino Community College and Northland Pioneer College.

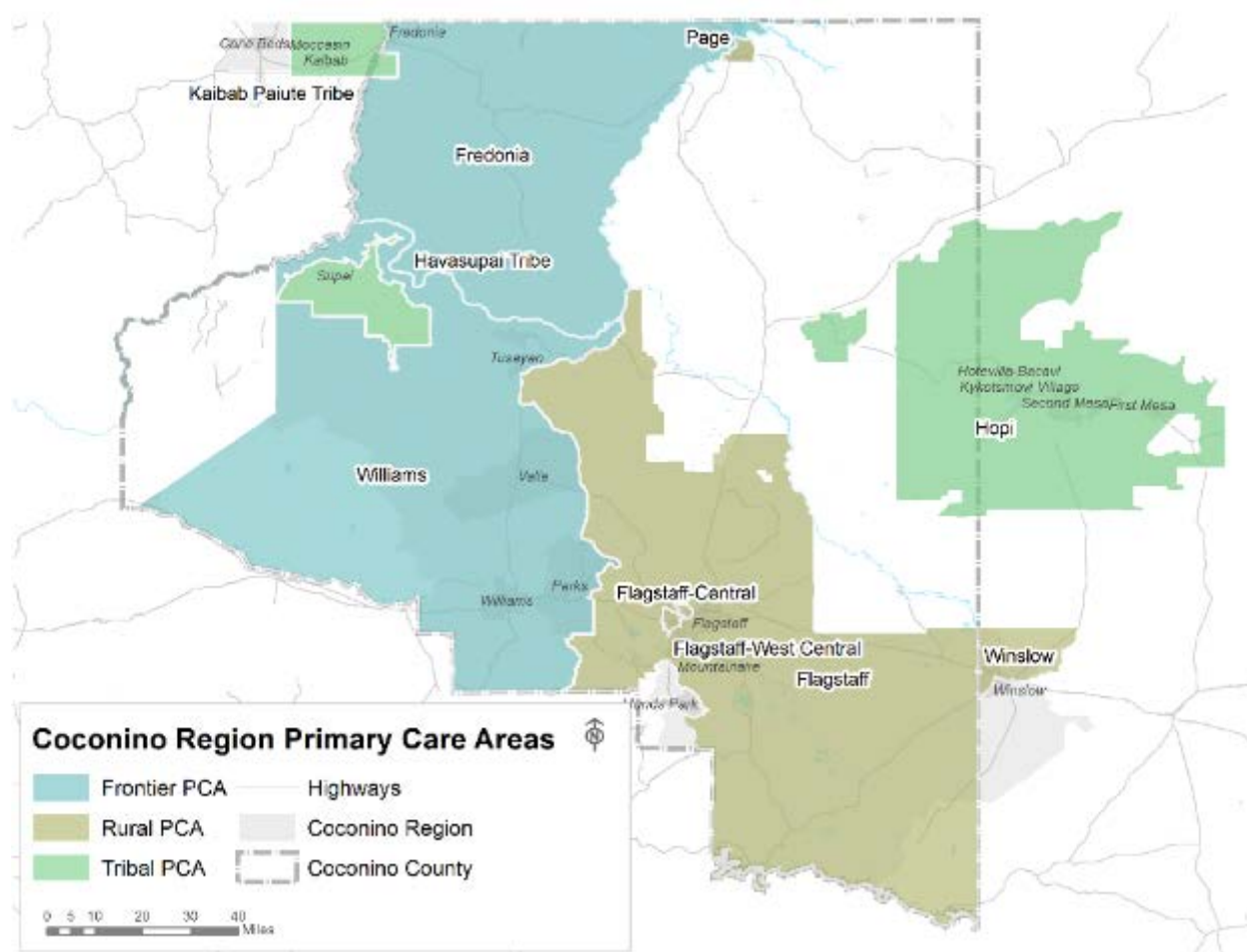
## Health

### Access to Care

The Arizona Department of Health Services designates Primary Care Areas (PCAs) as geographically based areas in which most residents seek primary medical care within the same places.<sup>42</sup> The labels for the Primary Care Areas are drawn from the major population centers for those areas. Each Primary Care Area also carries a designation based on its population density; areas designated as *rural* are those with 44 people or fewer per square mile, and *frontier* areas are those with 3 people or fewer per square mile. There are ten Primary Care Areas within the region. There are five rural PCAs (Flagstaff, Flagstaff-Central, Flagstaff-West Central, Winslow, and Page), two frontier PCAs (Fredonia and Williams), and three tribal PCAs (Kaibab Paiute, Havasupai, and Hopi). Figure 19 shows the location of each PCA.

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<sup>42</sup> Arizona Department of Health Services, Division of Public Health Services Data Documentation for Primary Care Area and Special Area Statistical profiles. Bureau of Health Systems Development.

**Figure 19. Primary Care Areas (PCAs) in the Coconino Region**

Source: Arizona Department of Health Services (2014). Arizona ArcMap files: PCAs. Retrieved from <http://www.azdhs.gov/hsd/data/data.htm>

The Arizona Department of Health Services gives each PCA a score based on 13 weighted items, to provide a snapshot of the health of the area residents.<sup>43</sup> In the Coconino Region, the Williams PCA and the three Flagstaff-area PCAs have the lowest (best) scores, ranging from 22 (Flagstaff-West Central) to 34 (Williams). Page, Winslow, and Fredonia have scores between 40 and 49. The Kaibab-Paiute PCA scores in the 50's, and the Havasupai PCA has the highest score in the region, 69.

A new priority for the State Title V priorities for 2011-2016 for Arizona's maternal and child health population is to improve access to and quality of preventive health services for children. According to a 2013 report, Arizona may have increasing capacity to provide preventive health

<sup>43</sup> The 13 items are provider-to-population ratio; travel distance to primary care provider; transportation score; percent of population under 200% of the federal poverty level (FPL); percent of population between 100% and 200% of the FPL; uninsured births; ambulatory-care admissions; low-birth-weight births; lack of prenatal care; percentage of deaths before life expectancy; infant mortality rate; percentages of minorities, the elderly, and the unemployed; and whether the area has one (or fewer) full-time providers. Source: Arizona Administrative Code R9-24-203.

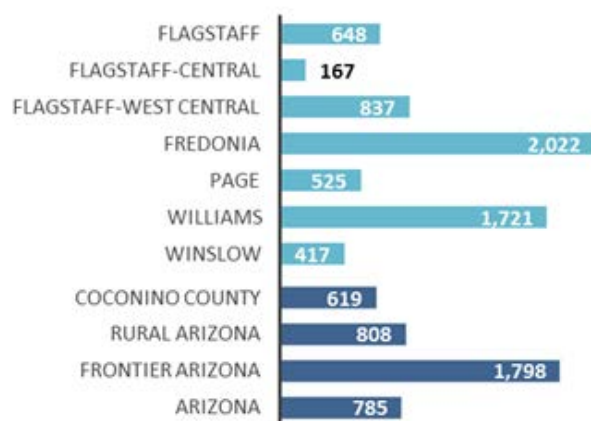


services for children ages birth through five years through funding from First Things First, and through potential funding for home visiting programs through the Affordable Care Act.<sup>44</sup>

On the 2012 Family and Community Survey, a large majority of parents and caregivers in the Coconino Region (85%) agreed with the statement “My child has regular visits at the same doctor’s office.” Statewide, 93% of respondents agreed with the statement.

Figure 20 shows the ratio of the population to primary care providers in the region by PCA. The ratio of the population to the number of primary care providers can be used as an indicator of the healthcare infrastructure within the region. In Arizona as a whole, the ratio of residents per primary care provider is about 785:1; in Coconino County, there are an average of 619 residents per primary care provider. Although the overall ratio suggests good coverage in the region, there are still challenges to access in some of the more rural PCAs.

**Figure 20. Ratios of population (all ages) to primary-care providers, by PCA**



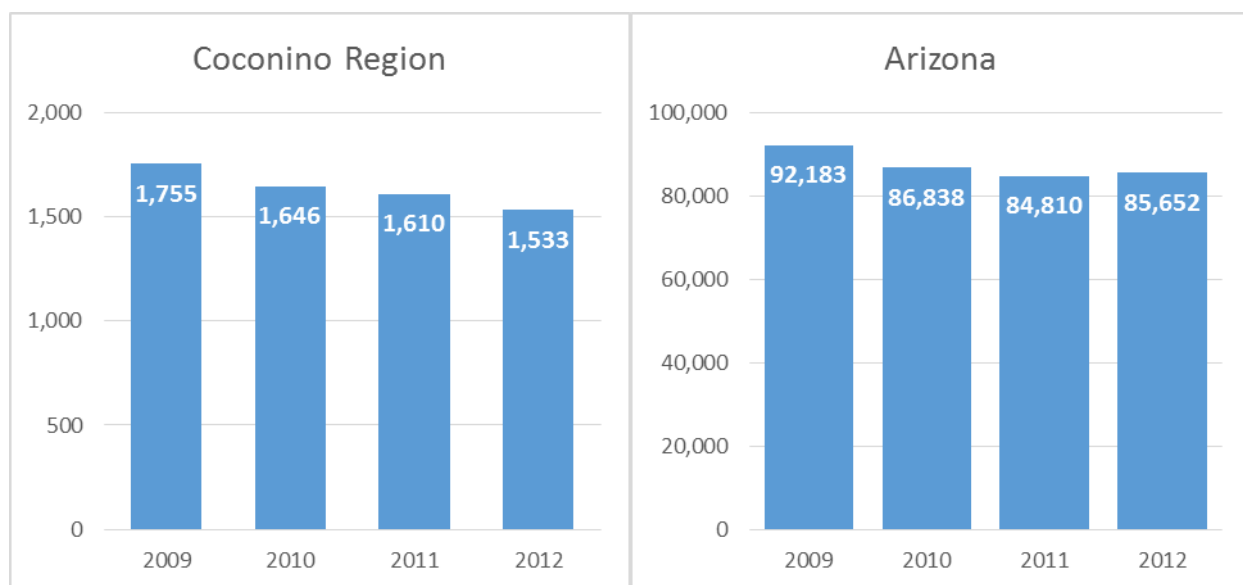
Arizona Department of Health Services (2013). Primary Care Area Statistical Profiles 2012. Retrieved from <http://www.azdhs.gov/hsd/data/profiles/primary-care/>

## Pregnancies and Births

From the 1950’s until the economic downturn in 2008, the number of babies born each year in Arizona increased each year. After 2008, the number of babies born each year in the state has been less than the number born the year before. This decreasing trend may be over, as the number of babies born in 2012 (85,652) was greater than the number born the year before (84,810). In the Coconino Region, the trend has been consistently fewer births each year from 2008 (1,755) to 2012 (1,533).

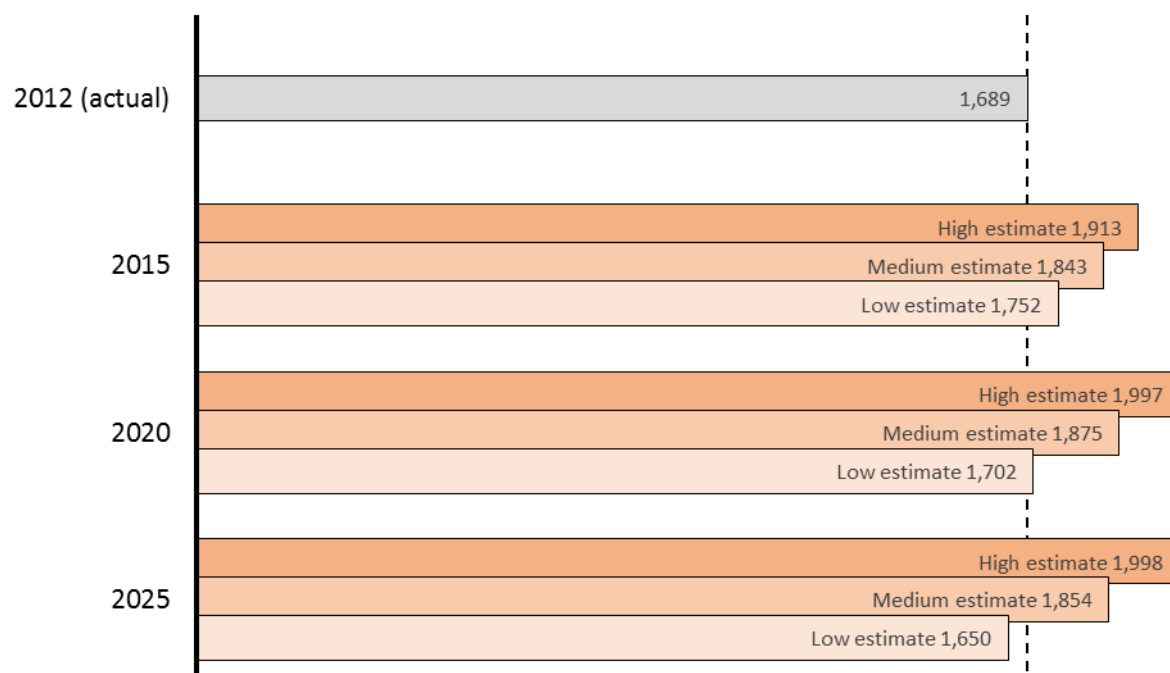
A practical implication of these births data is that, at least from about 2008 to 2011, each age cohort is smaller than the one before it. The babies born in 2009 are having their fifth birthdays during 2014. The decline in the number of births each year in the recent past means that the total number of children in the 0 to 5 age range is expected to decline each year, at least for the next few years.

<sup>44</sup> Maternal and Child Health Services Title V Block Grant, State Narrative for Arizona, 2013 Application, Annual Report for 2011.

**Figure 21. Number of births per calendar year, 2009 to 2012**

Source: Arizona Department of Health Services (2014). [Vital Statistics data set]. Unpublished raw data received from the First Things First State Agency Data Request

The Arizona Department of Administration (ADoA) publishes estimates of the population for the next few years. Their projections for the number of births over the next ten years for Coconino County (not Region) are shown in Figure 22. The “medium estimates” predict that the number of births in the county will increase slightly, then remain almost constant over the next ten years, in the neighborhood of 1,850 births per year. (Note that these projections are for the county, so they include parts of the Navajo Nation and Sedona, which are not included in the FTF Coconino region.)

**Figure 22. Projected numbers of births in Coconino County, 2015 to 2025**

Arizona Department of Administration, Office of Employment and Population Statistics (December 2012): "2012-2050 State and county population projections"

Many of the risk factors for poor birth and neonatal outcomes can be mitigated by good prenatal care, which is most effective if delivered early and throughout pregnancy to provide risk assessment, treatment for medical conditions or risk reduction, and education. Research has suggested that the benefits of prenatal care are most pronounced for socioeconomically disadvantaged women, and prenatal care decreases the risk of neonatal mortality, infant mortality, premature births, and low-birth-weight births.<sup>45</sup> Care should ideally begin in the first trimester.

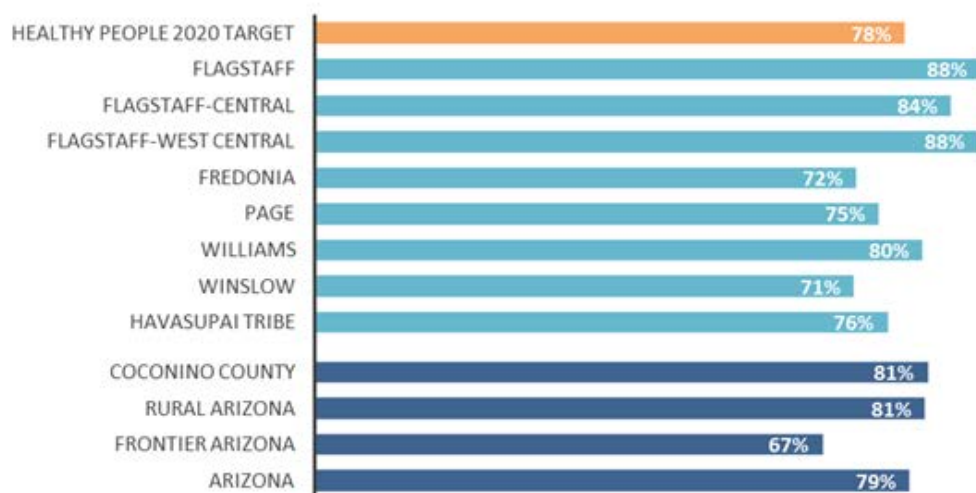
Healthy People is a science-based government initiative which provides 10-year national objectives for improving the health of Americans. Healthy People 2020 targets are developed with the use of current health data, baseline measures, and areas for specific improvement. The Healthy People 2020 target for receiving prenatal care in the first trimester is 78 percent or more. In Arizona as a whole, seventy-nine percent of births meet this standard. In the Coconino Region, the HP 2020 target was exceeded in each of the four years from 2009 to 2012.

<sup>45</sup> Kiely, J.L. & Kogan, M.D. *Prenatal Care*. From Data to Action: CDC's Public Health Surveillance for Women, Infants, and Children. Centers for Disease Control and Prevention.

**Figure 23. Percent of births in the Coconino Region with prenatal care begun in the first trimester**

Arizona Department of Health Services (2014). [Vital Statistics data set]. Unpublished raw data received from the First Things First State Agency Data Request

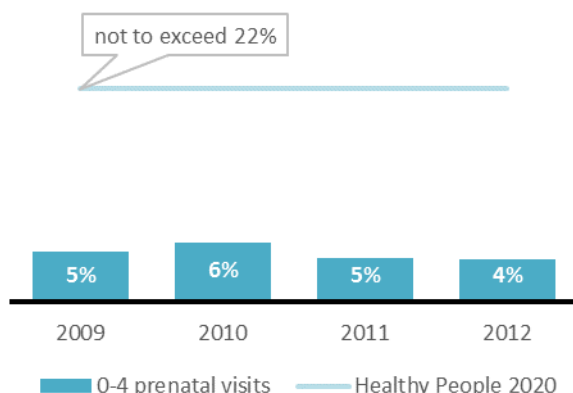
A look at the data averaged over the ten years from 2002 to 2011 shows us that expectant mothers in the Flagstaff-area PCAs were more likely than those in other parts of the region to begin prenatal care early. Some of the more rural areas fall below the Healthy People 2020 target.

**Figure 24. Percent of births with prenatal care begun in the first trimester, by PCA (2002-2011)**

Arizona Department of Health Services (2013). Primary Care Area Statistical Profiles 2012. Retrieved from <http://www.azdhs.gov/hsd/data/profiles/primary-care/>

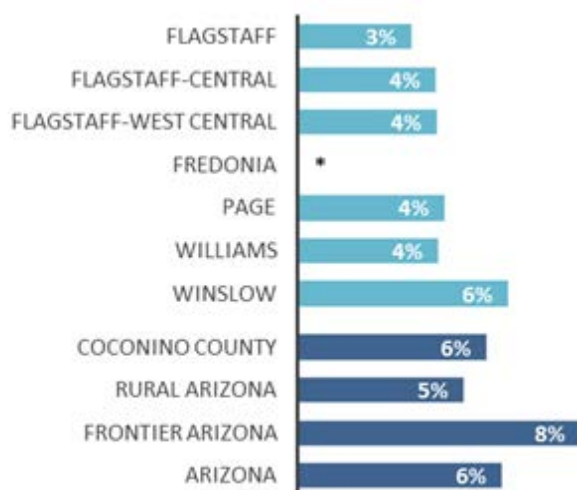
In addition to early care, it is important that women receive adequate prenatal care throughout their pregnancy, in order to monitor their health and provide them with information for a healthy pregnancy and post-natal period. The American College of Obstetrics and Gynecology (ACOG) recommends at least 13 prenatal visits for a full-term pregnancy. The Healthy People 2020 target for percent of mothers receiving fewer than five prenatal care visits is 22 percent or less. The Coconino Region has been well under this target each year from 2009 to 2012. Each Primary Care Area in the region for which we have data met the Healthy People 2020 target.

**Figure 25. Percent of births in the Coconino Region with fewer than five prenatal care visits**



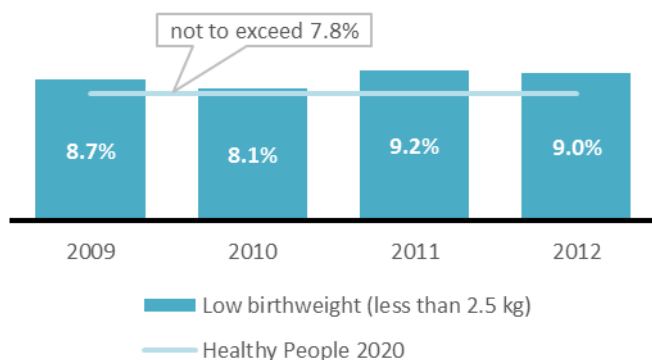
Arizona Department of Health Services (2014). [Vital Statistics data set]. Unpublished raw data received from the First Things First State Agency Data Request

**Figure 26. Percent of births with fewer than five prenatal care visits, by PCA (2002-2011)**



Arizona Department of Health Services (2013). Primary Care Area Statistical Profiles 2012. Retrieved from <http://www.azdhs.gov/hsd/data/profiles/primary-care/>

Low birth weight is the risk factor most closely associated with neonatal death; thus, improvements in infant birth weight can contribute substantially to reductions in the infant-mortality rate. Low birth weight is associated with a number of factors including maternal smoking or alcohol use, inadequate maternal weight gain, maternal age younger than 15 or older than 35 years, infections involving the uterus or the fetus, placental problems, and birth defects, as well as air pollution. The definition of low birth weight is a baby weighing less than 5 pounds, 8 ounces (2.5 kg). The Healthy People 2020 target is 7.8 percent or fewer births in which babies are low birth weight. As shown in Figure 27 below, the region has failed to achieve this HP 2020 target in each of the past four years.

**Figure 27. Percent of births in the Coconino Region with low birthweight (under 5½ pounds)**

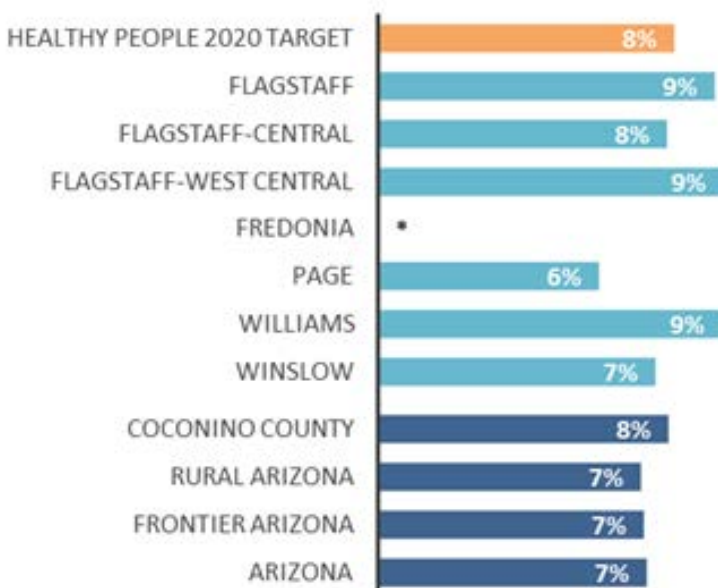
Arizona Department of Health Services (2014). [Vital Statistics data set]. Unpublished raw data received from the First Things First State Agency Data Request

Looking at the data for each PCA averaged over the past decade (2002 to 2011), we see that there are a greater percentage of low birth weight babies born in the Flagstaff and Williams areas. The more rural parts of the region meet or come very close to the HP 2020 target.

Research shows that babies born at higher elevations tend to weigh less than babies born at sea level. The effect is estimated to be in the neighborhood of one ounce per thousand feet of elevation.<sup>46 47</sup>

<sup>46</sup> Jensen, G. M., & Moore, L. G. (1997). The effect of high altitude and other risk factors on birthweight: Independent or interactive effects?. American Journal of Public Health, 87(6), 1003-1007.

<sup>47</sup> Zahran, S., Breunig, I. M., Link, B. G., Snodgrass, J. G., & Weiler, S. (2014). A quasi-experimental analysis of maternal altitude exposure and infant birth weight. American Journal of Public Health, 104(S1), S166-S174.

**Figure 28. Percent of births with low birthweight (under 5½ pounds), by PCA (2002-2011)**

Arizona Department of Health Services (2013). *Primary Care Area Statistical Profiles 2012*. Retrieved from <http://www.azdhs.gov/hsd/data/profiles/primary-care/>

Teenage parenthood, particularly when teenage mothers are under 18 years of age, is associated with a number of health concerns for infants, including neonatal death, sudden infant death syndrome, and child abuse and neglect. In addition, the children of teenage mothers are more likely to have lower school achievement and drop out of high school, be incarcerated at some time during adolescence, give birth as a teenager, and face unemployment as a young adult. Teenaged mothers themselves are less likely to complete high school or college, and more likely to require public assistance and to live in poverty than their peers who are not mothers.

The teen birth rate in Arizona in 2012 was 18.7 births per thousand females aged 15-17, and 66.1 births per thousand females aged 18-19. Although the number of teen births in Arizona has dramatically decreased in recent years, Arizona still has the 11th highest teen birth rate nationally. Because young teen parenthood (under 18 years old) can have far-reaching consequences for mother and baby alike, and older teen parenthood (18-19) can continue to affect educational attainment, these rates indicate that teen parenthood services for teen parents may be important strategies to consider in order to improve the well-being of young children in these areas.

Arizona had the largest decline in teen pregnancy in the nation between 2007 and 2010, with a 29 percent decline.<sup>48</sup> However the teen birth rate in Arizona is still higher than the national average, both for girls aged 10 to 14 and those aged 15 to 19. In Arizona, teen pregnancy was estimated to have cost the state \$240 million in 2010. The costs in previous years had been

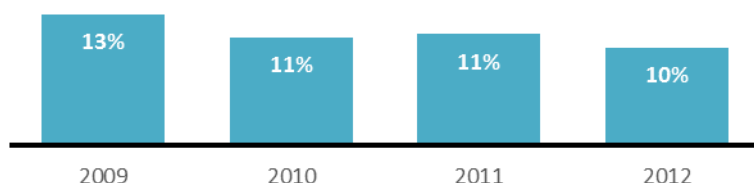
<sup>48</sup> Arizona State Health Assessment, December 2013. Arizona Department of Health Services.



much higher and if the declines in teen pregnancy seen in recent years had not occurred, the state would have needed to spend an estimated \$287 million more in 2010.<sup>49</sup> Reducing the rate of teen pregnancy among youth less than 19 years of age is one of the ten State Title V priorities for 2011-2016 for Arizona's maternal and child health population.

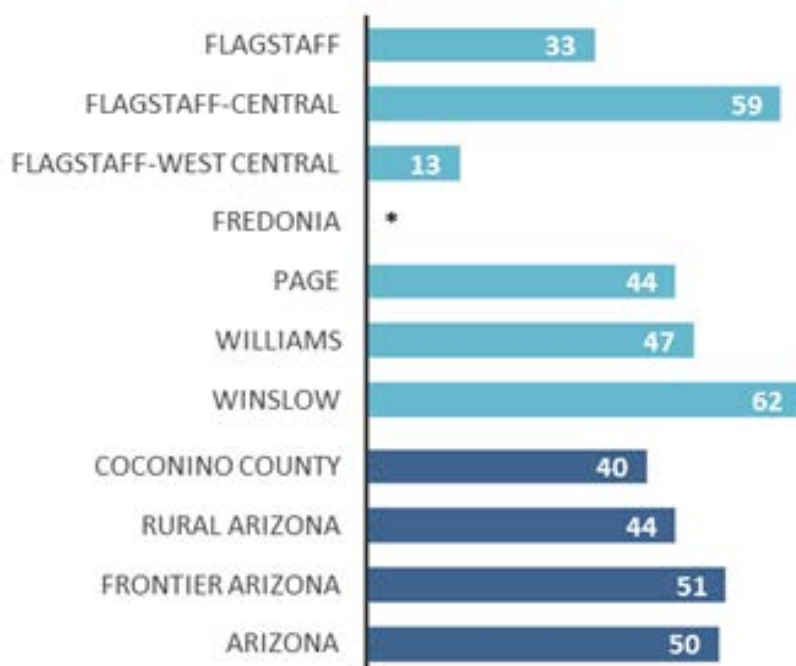
In 2012, nine percent of all births in Arizona were to mothers aged 19 or younger; in the Coconino Region, 10 percent of births were to teen mothers. Over the four years from 2009 to 2012, this percentage has decreased slightly each year. Some PCAs, however, have shown a relatively high rate of teen births over the past ten years, compared to the state or the county.

**Figure 29. Percent of births in the Coconino Region to teen-aged mothers**



Arizona Department of Health Services (2014). [Vital Statistics data set]. Unpublished raw data received from the First Things First State Agency Data Request

**Figure 30. Rate of teen births (per thousand women), by PCA (2002-2011)**

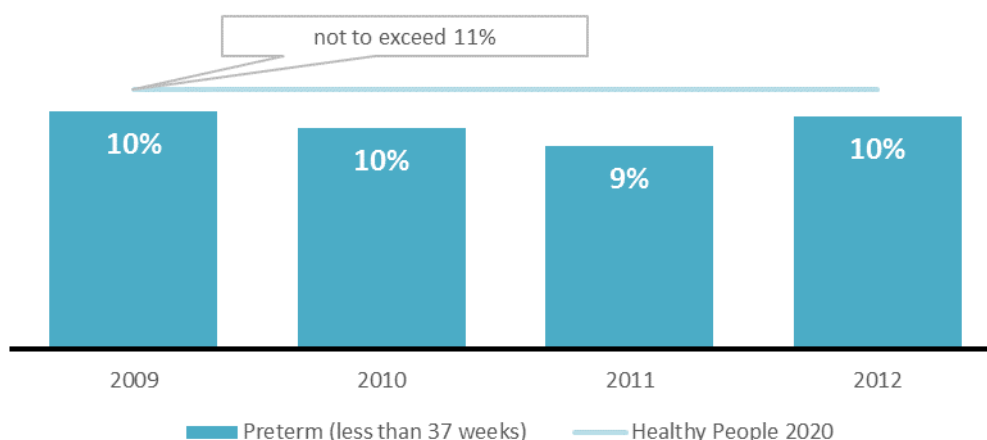


Arizona Department of Health Services (2013). Primary Care Area Statistical Profiles 2012. Retrieved from <http://www.azdhs.gov/hsd/data/profiles/primary-care/>

<sup>49</sup> The National Campaign to Prevent Teen and Unplanned Pregnancy. Counting It Up. The Public Costs of Teen Childbearing in Arizona in 2010. April 2014.

The percent of births which are preterm (less than 37 weeks) in the region has been within the Healthy People 2020 target each year from 2009 to 2012. The percentage in the Coconino Region in 2012 (10%) is slightly higher than the statewide rate of nine percent.

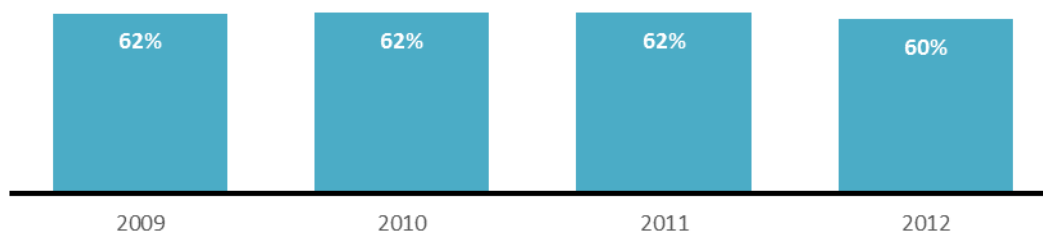
**Figure 31. Percent of preterm births (less than 37 weeks) in the Coconino Region**



Arizona Department of Health Services (2014). [Vital Statistics data set]. Unpublished raw data received from the First Things First State Agency Data Request

In 2012, 60 percent of the births in the Coconino Region were covered by a public payor, either AHCCCS or IHS. This rate is a slight decrease over the previous three years. The statewide rate in 2012 was 55 percent.

**Figure 32. Percent of births in the Coconino Region which were covered by AHCCCS or IHS**



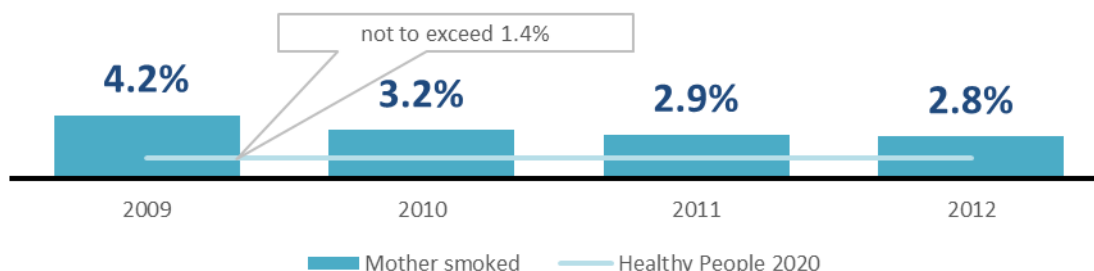
Arizona Department of Health Services (2014). [Vital Statistics data set]. Unpublished raw data received from the First Things First State Agency Data Request

Smoking during pregnancy has been shown to increase the risk of pregnancy complications, premature delivery, low birth weight infants, stillbirth and sudden infant death syndrome.<sup>50</sup> Although the percentage of mothers who smoked during pregnancy has been declining since 2009, the rate in 2012 (2.8%) was still twice as high as the Healthy People 2020 target of 1.4

<sup>50</sup> US Department of Health and Human Services (2004). *The health consequences of smoking: A report of the Surgeon General*. Atlanta: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

percent. Notably, the rates of tobacco use among expectant mothers in 2012 are several times higher in the neighboring Yavapai (12%) and La Paz/Mohave (14%) regions.

**Figure 33. Percent of mothers in the Coconino Region reporting tobacco use during pregnancy**



Arizona Department of Health Services (2014). [Vital Statistics data set]. Unpublished raw data received from the First Things First State Agency Data Request

## Insurance Coverage

### *The Affordable Care Act and Medicaid Expansion*

In 2012, Arizona had the third highest rate of uninsured children in the country, with 13% of the state's children (those under 18 years of age) uninsured.<sup>51</sup>

The Patient Protection and Affordable Care Act (ACA) was signed into law on March 23, 2010. The ACA aims to expand access to health care coverage, requires insurers to cover preventative and screening services such as vaccinations, and ensures coverage for those with pre-existing conditions. In 2013, states could choose to expand Medicaid, with the federal government covering the entire cost for three years and 90 percent thereafter, which Arizona chose to do. Arizonans who earn less than 133 percent of the federal poverty level (approximately \$14,000 for an individual and \$29,000 for a family of four) are eligible to enroll in Medicaid (AHCCCS), while those with an income between 100 percent and 400 percent of the federal poverty level who are not eligible for other affordable coverage may receive tax credits to help offset the cost of insurance premiums.<sup>52</sup> These individuals can purchase health insurance thru health insurance exchanges. The ACA requires most Americans to obtain insurance coverage.

In addition to immunizations, the ACA requires insurance plans to cover of a number of "essential" services relevant to children. These include routine eye exams and eye glasses for children once per year, and dental check-ups for children every six months. However, in Arizona, offered health plans are not required to include these pediatric vision and oral services, as long as supplemental, stand-alone pediatric dental and vision plans are available to consumers. A potential barrier to this method is that a separate, additional premium for this supplemental plan is required, and subsidies will not be available for these separately

<sup>51</sup> Mancini, T. & Alker, J. (2013). Children's Health Coverage on the Eve of the Affordable Care Act. Georgetown University Health Policy Institute, Center for Children and Families

<sup>52</sup> Arizona EHB Benchmark Plan. Centers for Medicare & Medicaid services.

purchased plans. Both these factors may make these supplemental pediatric dental and vision plans unaffordable for some families. In addition, when these “essential” services are offered in a stand-alone plan, families are not required to purchase them to avoid penalties. These factors may limit the uptake of pediatric dental and vision coverage in Arizona.<sup>53 54 55 56</sup>

### ***The Affordable Care Act and American Indians and Alaska Natives***

As mentioned, the ACA aims to improve the health of all Americans by increasing health care coverage and health care services. The ACA also permanently reauthorizes the Indian Health Care Improvement Act, which legalizes the provisions of healthcare to be provided to American Indians and Alaska Natives (AIANs). Under the ACA, all Indian Health Service providers and functions will continue to operate as before; and AIANs who acquire health care coverage through the Market Place are still eligible to receive services from Indian Health Service and tribal and urban health clinics and programs. In addition, the ACA contains several mandates concerning American Indians and Alaska Natives (AIANs), tribal health delivery systems, and tribal employers that are important to take note of.

American Indians who are members of federally recognized tribes (and Alaska Natives who are members of ANCSA Corporations) have special privileges under the ACA that other Americans do not have. One such privilege is the ability to enroll in a health insurance plan at any time during the year, regardless of open enrollment time frames. AIANs are also able to change their health insurance plans as often as once a month. Qualified AIANs are also eligible for special insurance plan rates. Those who make below 300 percent of the federal poverty level (approximately \$34,500 for an individual and \$70,700 for a family of four) are eligible to enroll in Zero Cost Sharing plans which require no out-of-pocket costs to enrollees. Additionally, qualified AIANs who make above 300 percent of the federal poverty level, are eligible to enroll in Limited Cost Sharing plans. AIANs are also eligible to apply for exemption from the fee (Shared Responsibility Fee) that applies to Americans who can afford to buy health insurance, but choose not to buy it. Those who are not members of a federally recognized tribe but are still eligible to receive Indian health care services, can also benefit from special cost eligibility requirements for both Medicaid and the Children’s Health Insurance Program (CHIP).

Enrolling in Medicaid, CHIP, and private insurance plans offers both individual health benefits and benefits for entire tribal communities and all AIAN people. Individuals who enroll in a health insurance plan gain increased access to health care services by being able to visit their insurance plan providers and Indian Health Services, Tribes and Tribal Organizations, and Urban Indian Organizations (I/T/Us). Entire AIAN communities benefit because when an outside insurer is billed for medical services there is a savings in Contract Health Service. The money saved through outside billing (third-party billing) can then be used in other ways to benefit all tribal citizens.

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<sup>53</sup> Essential Health Benefits. Arizona Department of Insurance. June 1, 2012.

<sup>54</sup> <http://www.azgovernor.gov/hix/documents/Grants/EHBReport.pdf>

<sup>55</sup> Can I get dental coverage in the Marketplace? [www.healthcare.gov](http://www.healthcare.gov)

<sup>56</sup> Kids’ Dental Coverage Uncertain under ACA. Stateline, The Daily News of the Pew Charitable Trusts.

Another mandate of the ACA is that many employers must offer health care insurance coverage to their employees. Tribes are unique in this sense because many tribes also function as employers, therefore, this mandate will apply. However, this mandate will effect tribes and tribal employers differently, depending on the number of full-time and full-time equivalent employees the tribe or tribal enterprise has. As a basic rule of thumb, employers who employ 50 or more full-time or full-time equivalent employees are classified as a “Large Employer” and required to offer health insurance to their employees or pay a fine. More information regarding employer health insurance mandates and an interactive questionnaire for employers can use to find out what their business is classified as and what their health insurance responsibilities are can be found at <http://tribalhealthcare.org/tribal-employers/>.

Table 33 shows the percent of the population estimated to be uninsured in the Coconino Region, in each hub, in the county, and in the state. The percentage of the total population uninsured in the region (21%) is higher than the percentage of uninsured children aged birth through five in the region (17%). Both rates of uninsurance are higher than in the state as a whole (17% and 11%). A large proportion of the Havasupai Hub are reported as uninsured (but see the note about the definition of *uninsured* following the table). Young children in the Northern Hub have the lowest uninsurance rate (10%) in the region.

**Table 33. Estimated percent of the population without health insurance**

GEOGRAPHY	POPULATION (ALL AGES)	ESTIMATED PERCENT OF POPULATION UNINSURED (ALL AGES)	POPULATION (AGES 0-5)	ESTIMATED PERCENT OF POPULATION UNINSURED (0-5)
Coconino Region	124,163	21%	9,723	17%
Southern Hub	93,010	20%	6,811	18%
Winslow Hub	10,822	20%	966	16%
Northern Hub	10,117	22%	970	10%
Hopi Hub				
Grand Canyon Hub	2,627	26%	151	xx
Havasupai Hub	481	80%	64	xx
Coconino County	134,421	21%	10,777	16%
Arizona	6,392,017	17%	546,609	11%

US Census (2013). American Community Survey 5-Year Estimates, 2008-2012, Table B27001. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Note: An entry of xx indicates that an estimate cannot be reported, because of the small sample size.

Note: Based on the US Census Bureau definition, Indian Health Services does not provide “comprehensive” health care coverage. Persons who depend on Indian Health Services alone for health care are counted by the US Census and American Community Survey as “uninsured” (that is, without third-party insurance coverage).

### **Medicaid (AHCCCS) and KidsCare Coverage**

Children in Arizona are covered by the Arizona Health Care Cost Containment System (AHCCCS), Arizona’s Medicaid, through both the Title XIX program (Traditional Medicaid and the Proposition 204 expansion of this coverage of up to 100 percent of the Federal Poverty Level or FPL) and the Title XXI program (Arizona’s Children’s Health Insurance Program known as KidsCare). KidsCare operates as part of the AHCCCS program and provides coverage for children

in households with incomes between 100 percent -200 percent of the FPL. However, due to budget cuts at the state level, enrollment in the KidsCare Program was frozen on January 1, 2010, and eligible new applicants were referred to the KidsCare Office to be added to a waiting list.

Beginning May 1, 2012 a temporary new program called KidsCare II became available through January 31, 2014, for a limited number of eligible children. KidsCare II had the same benefits and premium requirements as KidsCare, but with a lower income limit for eligibility; it was only open to children in households with incomes from 100 percent to 175 percent of the FPL, based on family size. Monthly premium payments, however, were lower for KidsCare II than for KidsCare.<sup>57</sup>

Combined, KidsCare and KidsCare II insured about 42,000 Arizona children, with almost 90 percent being covered thru the KidsCare II program. On February 1, 2014, KidsCare II was eliminated. Families of these children then had two options for insurance coverage; they could enroll in Medicaid (AHCCCS) if they earn less than 133 percent of the FPL, or buy subsidized insurance on the ACA health insurance exchange if they made between 133 percent and 200 percent of the FPL. However this leaves a gap group of up to 15,000 kids in Arizona whose families can't afford insurance because they don't qualify for subsidies. A solution proposed by Arizona legislators is to again allow children whose families earn between 133 percent and 200 percent of the poverty level to enroll in KidsCare.<sup>58</sup>

Currently, enrollment for the original KidsCare will remain frozen in 2014. Children enrolled in KidsCare with families making between 133 percent and 200 percent of the FPL will remain in KidsCare as long as they continue to meet eligibility requirements, and continue paying the monthly premium. Children enrolled in KidsCare whose families make between 100 percent and 133 percent of the FPL will be moved to Medicaid (AHCCCS). New applicants to KidsCare with incomes below 133 percent of the FPL will be eligible for Medicaid (AHCCCS). Applicants with incomes above 133 percent of the FPL will be referred to the ACA health insurance exchanges to purchase (potentially subsidized) health insurance.<sup>59</sup>

Table 34 shows that very few children in the county or the state were enrolled in KidsCare in 2014.

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<sup>57</sup> Monthly premiums vary depending on family income but for KidsCare they are not more than \$50 for one child and no more than \$70 for more than one child. For KidsCare II premiums are no more than \$40 for one child and no more than \$60 for more than one. Note that per federal law, Native Americans enrolled with a federally recognized tribe do not have to pay a premium. Proof of tribal enrollment must be submitted with the application.

<sup>58</sup> Thousands of Kids Could Lose Health Coverage Saturday. January 30, 2014, Arizona Public Media.

<sup>59</sup> Arizona State Health Assessment, December 2013. Arizona Department of Health Services.

**Table 34. Children (0-17) with KidsCare coverage, 2012 to 2014**

GEOGRAPHY	POPULATION (0-17)	MARCH 2012		MARCH 2013		MARCH 2014	
Coconino County	31,788	200	0.6%	817	2.6%	32	0.1%
Arizona	1,629,014	11,646	0.7%	35,965	2.2%	2,148	0.1%

AHCCCS (2014). KidsCare Enrollment by County. Retrieved from

<http://www.azahcccs.gov/reporting/Downloads/KidsCareEnrollment/2014/Feb/KidsCareEnrollmentbyCounty.pdf>

## Developmental Screenings and Services for Children with Special Developmental and Health Care Needs

The Arizona Child Find program is a component of the Individuals with Disabilities Education Act (IDEA) that requires states to identify and evaluate all children with disabilities (birth through age 21) to attempt to assure that they receive the supports and services they need. Children are identified through physicians, parent referrals, school districts and screenings at community events. Each Arizona school district is mandated to participate in Child Find and to provide preschool services to children with special needs either through their own schools or through agreements with other programs such as Head Start.

The National Survey of Children with Special Health Care Needs estimated that 7.6 percent of children from birth to 5 (and about 17% of school-aged children) in Arizona have special health care needs, defined broadly as “those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally.”<sup>60</sup> The survey also estimates that nearly one in three Arizona children with special health care needs have an unmet need for health care services (compared to about one in four nationally).

In addition, although all newborns in Arizona are screened for hearing loss at birth, approximately one third of those who fail this initial screening do not receive appropriate follow up services to address this auditory need.<sup>61</sup>

### AzEIP Referrals and Services

Screening and evaluation for children from birth to three are provided by the Arizona Early Intervention Program (AzEIP), which also provides services or makes referrals to other appropriate agencies (e.g. for Department of Developmental Disabilities case management). Children eligible for AzEIP services are those who have not reached 50 percent of the developmental milestones for his or her age in one or more of the following areas: physical, cognitive, communication/language, social/emotional or adaptive self-help. Children who are at high risk for developmental delay because of an established condition (e.g., prematurity, cerebral palsy, spina bifida, among others) are also eligible. Families who have a child who is determined to be eligible for services work with the service provider to develop an

<sup>60</sup> “Arizona Report from the 2009/10 National Survey of Children with Special Health Care Needs.” NS-CSHCN 2009/10. Child and Adolescent Health Measurement Initiative, Data Resource Center for Child and Adolescent Health website.

<sup>61</sup> Maternal and Child Health Services Title V Block Grant, State Narrative for Arizona, 2013 Application, Annual Report for 2011.



individualized Family Service Plan that identifies family priorities, child and family outcomes desired, and the services needed to support attainment of those outcomes.

AzEIP providers can offer, where available, an array of services to eligible children and their families, including assistive technology, audiology, family training, counseling and in-home visits, health services, medical services for diagnostic evaluation purposes, nursing services, nutrition, occupational therapy, physical therapy, psychological services, service coordination, social work, special instruction, speech-language therapy, vision services, and transportation (to enable the child and family to participate in early intervention services).

Children over age three with developmental delays are supported by the public schools in their home district who are responsible for finding and evaluating eligible children, and for arranging appropriate classes and therapies. If the school, parents or other provider feel that the child is delayed sufficiently to qualify for Department of Developmental Disabilities, a referral can be made. See Early Care and Education, above, for more information on special education in the schools in the Region.

Regional AzEIP data was unavailable for the current report, however some state-level summaries were provided. Data provided include AzEIP statewide data for the total unduplicated number of children served for 2012. (Note that these numbers include children served in AzEIP only, DDD, and the Arizona Schools for the Deaf and the Blind). During the month of February 2013, there were 5,451 AzEIP-eligible children with an Individualized Family Service Plan. In addition, the total number of children served in Arizona in 2012 based on an October 1st count was 5,100. Of those, 667 were one year old or younger, 1,561 were between the ages of one and two and 2,872 were between two and three years of age. The total number of infants and toddlers receiving early intervention services from July 1, 2011, through June 30, 2012 was 9,738 (which is all AzEIP-eligible children including AzEIP only, DDD and ASDB).<sup>62</sup>

### ***DDD Services***

The Division of Developmental Delays (DDD) serves adults and children throughout the state. DDD supports the family unit by encouraging the family to serve as primary caregivers and by providing in-home assistance and respite care. To qualify for DDD services an individual must have a cognitive delay, cerebral palsy, autism, epilepsy or be at risk for one of these delays. In addition, the delay must limit the individual in three or more of the following areas: self-care, communication, learning, mobility, independent living, or earning potential. Children aged birth through two are eligible if they show significant delays in one or more area of development. They are often served by the Arizona Early Intervention Program (AzEIP) which works to support their development and coach family in supporting the child's development. Children aged three to six are eligible if they are at-risk for a developmental delay if they don't receive services. DDD also offers support groups for families dealing with autism or Downs Syndrome or families receiving services who are Spanish-speaking only.<sup>63</sup>

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<sup>62</sup> First Things First (2014). [AzEIP Data]. Unpublished raw data received through the First Things First State Agency Data Request.

<sup>63</sup> Family Support Annual Report, July 1, 2011 – June 30, 2012. Dept of Economic Security Division of Developmental Disabilities.

In the Coconino Region, the number of children from birth to 2.9 years of age receiving DDD services decreased from 58 in 2010 to 26 in 2012, a drop of 55 percent. The number of children between the ages of three and 5.9 years receiving services decreased from 33 to 26 during the same time, a drop of 21 percent. In the state as a whole, there was only a small decrease in the number of children served, down 8 percent from 2010 to 2012. The number of visits made by DDD to provide services has also decreased from 2010 to 2012 from a high of 5,896 visits in 2010 to a low of 4,115 visits in 2012.<sup>64</sup>

### ***Preschool and elementary school children enrolled in special education***

Another indicator of the needs for developmental services and services for children with special needs is the number of children enrolled in special education within schools. As can be seen in Table 35, the percentage of students enrolled in special education varies across school districts in the region, with a high of 19 percent in the Page district. Across the state, 12 percent of preschool and elementary school students are enrolled in special education.

**Table 35. Percent of preschool and elementary children enrolled in special education**

LOCAL EDUCATION AUTHORITY (LEA)	NUMBER OF SCHOOLS	NUMBER OF STUDENTS	STUDENTS ENROLLED IN SPECIAL EDUCATION	
Flagstaff Unified District	26	5,467	705	13%
Fredonia-Moccasin Unified District	2	151	25	17%
Grand Canyon Unified District	2	186	LT25	13%
Maine Consolidated School District	2	86	LT25	13%
Page Unified District	6	1,591	298	19%
Williams Unified District	2	303	47	16%
Winslow Unified District	6	1,119	123	11%
All Coconino County Charter Schools	9	1,440	124	9%
All Arizona Public and Charter Schools	2,846	610,079	72,287	12%

Arizona Dept of Education (2014). [Preschool & Elementary Needs data set]. Unpublished raw data from the FTF State Agency Data Request  
 Note: LT25 means that the data were suppressed because there were fewer than 25 students enrolled.

## **Immunizations**

Recommended immunizations for children birth through age six are designed to protect infants and children when they are most vulnerable, and before they are exposed to these potentially life-threatening diseases.<sup>65</sup> Personal-belief exemptions—parents and guardians opting out of required immunizations for their children for personal reasons rather than medical ones—have risen in Arizona kindergartens in recent years from 1.6 percent in 2003 to 3.9 percent for the 2012-2013 school year.<sup>66</sup> More than a third of kindergartens (35%), and 29 percent of child care facilities in the state have personal-belief exemption rates greater than five percent. Personal-belief exemptions are most often done for convenience (it may be easier than obtaining vaccination records) or due to fears about the negative health consequences of the vaccine

<sup>64</sup> First Things First (2014). [DDD Data]. Unpublished raw data received through the First Things First State Agency Data Request.

<sup>65</sup> Centers for Disease Control and Prevention. Immunization Schedules.

<sup>66</sup> Birnbaum, M. S., Jacobs, E. T., Ralston-King, J. & Ernst, K. C. (2013). Correlates of high vaccination exemption rates among kindergartens.

itself. Those obtaining personal-belief exemptions in kindergarten settings are more likely to be from White, higher income families, with higher rates also found in charter schools compared to public schools.<sup>67</sup> This is particularly interesting when considered along with the fact that Arizona has the highest number of charter schools in the country. Geographic clustering of high personal-belief exemption rates also exists in the state, which is of particular concern when considering the likelihood of vaccine-preventable disease outbreaks, e.g., pertussis. In sum, parental refusal to vaccinate is contributing to levels of under-vaccination across the state.

In response to these concerns, the Arizona Department of Health Services has developed an Action Plan to Address Increasing Vaccine Exemptions.<sup>68</sup> This plan includes strategies aimed at schools, child care centers, physicians' offices, and parents consisting of revisions to exemptions forms, education and training, streamlined immunization reporting, and better resources covering immunization requirements. Implementation of these strategies have begun and rates of exemptions will be tracked over time to judge the success of these strategies.

In Coconino County, the rates of personal-belief exemptions are higher than the statewide rates for both child care and kindergarten. Medical exemptions—given to children who might be harmed by a vaccine, or who have already had the disease—are relatively rare for children in child care as well as those in kindergarten.

**Table 36. Immunization rates for children enrolled in child care, 2012-13**

GEOGRAPHY	CHILDREN ENROLLED	4+ DTAP	3+ POLIO	1+ MMR	3+ HIB	3+ HEP B	1+ VARICELLA OR HISTORY	RELIGIOUS EXEMPTION	MEDICAL EXEMPTION
Coconino County	1,597	96%	96%	96%	95%	95%	94%	6%	0.7%
Arizona	84,244	94%	95%	96%	94%	94%	95%	4%	0.5%

Arizona Department of Health Services (2013). Child care Coverage for 2012-2013 School Year. Retrieved from <http://azdhs.gov/phs/immunization/statistics-reports.htm>

*Note: The immunization requirements for children ages 2-5 in child care in the state of Arizona are as follows: 4 doses of the DTAP (Diphtheria, Tetanus, Pertussis) vaccine, 3 doses of the polio vaccine, 1 dose of the MMR (Measles, Mumps, Rubella) vaccine, 3-4 doses of the Hib (Haemophilus Influenzae type B) vaccine, 3 doses of the Hepatitis B vaccine, 1 dose of the Varicella vaccine or parental recall of the disease.*

**Table 37. Immunization rates for children enrolled in kindergarten, 2012-13**

GEOGRAPHY	CHILDREN ENROLLED	4+ DTAP	3+ POLIO	2+ MMR	3+ HEP B	1+ VARICELLA OR HISTORY	PERSONAL EXEMPTION	MEDICAL EXEMPTION
Coconino County	1,483	93%	93%	93%	95%	95%	5%	0.3%
Arizona	87,909	95%	95%	95%	96%	97%	4%	0.3%

Arizona Department of Health Services (2013). Kindergarten Coverage for 2012-2013 School Year. Retrieved from <http://azdhs.gov/phs/immunization/statistics-reports.htm>

*Note: The immunization requirements for kindergarteners in the state of Arizona are as follows: 4-5 doses of the DTAP (Diphtheria, Tetanus, Pertussis) vaccine, 3-4 doses of the polio vaccine, 2-3 doses of the MMR (Measles, Mumps, Rubella) vaccine, 3-4 doses of the Hepatitis B vaccine, 1 dose of the Varicella vaccine or parental recall of the disease.*

<sup>67</sup> Birnbaum, M. S., Jacobs, E. T., Ralston-King, J. & Ernst, K. C. (2013). Correlates of high vaccination exemption rates among kindergartens.

<sup>68</sup> Arizona Department of Health Services. *Action Plan to Address Increasing Vaccine Exemptions*. October 1, 2013.

## Behavioral Health

Researchers and early childhood practitioners have come to recognize the importance of healthy social and emotional development in infants and young children. Infant and toddler mental health is the young child's developing capacity to "experience, regulate and express emotions; form close interpersonal relationships; and explore the environment and learn." When young children experience stress and trauma they have limited responses available to react to those experience. Mental health disorders in small children might be exhibited in physical symptoms, delayed development, uncontrollable crying, sleep problems, or in older toddlers, aggression or impulsive behavior. A number of interacting factors influence the young child's healthy development, including biological factors (which can be affected by prenatal and postnatal experiences), environmental factors, and relationship factors.

A continuum of services to address infant and toddler mental health promotion, prevention and intervention has been proposed by a number of national organizations. Recommendations to achieve a comprehensive system of infant and toddler mental health services would include (a) the integration of infant and toddler mental health into all child-related services and systems, (b) ensuring earlier identification of and intervention for mental health disorders in infants, toddlers and their parents by providing child and family practitioners with screening and assessment tools, (c) enhancing system capacity through professional development and training for all types of providers, (d) providing comprehensive mental health services for infants and young children in foster care, and (e) engaging child care programs by providing access to mental health consultation and support.

### ***Enrollment in Public Behavioral Health System***

In Arizona, the Division of Behavioral Health Services (DBHS) of the Arizona Department of Health Services contracts with community-based organizations, known as Regional Behavioral Health Authorities (RBHAs), to administer behavioral health services. Coconino County (along with Navajo, Mohave, and Apache counties) is served by the Northern Arizona Regional Behavioral Health Authority (NARBHA).<sup>69</sup> Public behavioral health services to the tribes in the region are provided by NARBHA, the Indian Health Service, or by a tribally operated behavioral health program.

Each RBHA contracts with a network of service providers similar to health plans to deliver a range of behavioral health services, including treatment programs for adults with substance abuse disorders, and services for children with serious emotional disturbance.

In 2012, over 213,000 Arizonans were enrolled in the public behavioral health system. According to Arizona Department of Health data, 68,743 (32%) of enrollees were children or adolescents, up from 21 percent in 2011; children aged birth through five years comprised almost 56 percent of all enrollees<sup>70</sup> in 2012, compared to 4 percent in 2011.<sup>71</sup> With more than a

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<sup>69</sup> Division of Behavioral Health Services, Arizona Department of Health Services. (2013). *An Introduction to Arizona's Public Behavioral Health System*. Phoenix, Arizona.

<sup>70</sup> Arizona State Health Assessment, December 2013. Arizona Department of Health Services.

half million children aged birth to five in Arizona, this means that approximately two percent of young children statewide are receiving care in the public behavioral health system. It is likely that there are a much higher proportion of young children in need of these types of services than are receiving them. The lack of highly trained mental health professionals with expertise in early childhood and therapies specific to interacting with children, particularly in more rural areas, has been noted as one barrier to meeting the full continuum of service needs for young children. Children in foster care are also more likely to be prescribed psychotropic medications than other children, likely due to a combination of their exposure to complex trauma and the lack of available assessment and treatment for these young children.<sup>72</sup> Violence-exposed children who get trauma-focused treatment can be very resilient and develop successfully. To achieve this there needs to be better and quicker identification of children exposed to violence and trauma and in need of mental health intervention, and more child-specific, trauma-informed services available to treat these children.<sup>73</sup>

## Oral Health

Oral health is an essential component of a young child's overall health and well-being, as dental disease is strongly correlated with both socio-psychological and physical health problems, including impaired speech development, poor social relationships, decreased school performance, diabetes, and cardiovascular problems. Although pediatricians and dentists recommend that children should have their first dental visit by age one, half of Arizona children aged birth through four years have never seen a dentist.<sup>74</sup> In a statewide survey conducted by the Arizona Department of Health Services, Office of Oral Health, parents cited difficulties in finding a provider who will see very young children (34%), and the belief that the child does not need to see a dentist (46%) as primary reasons for not taking their child to the dentist.

Screenings conducted in Arizona preschools in 2008-2009 found that seven percent of children aged one year and younger showed the first signs of tooth decay, and 28 percent of children aged birth through four years had untreated tooth decay. Thirty-seven percent of four year olds were identified as needing dental care within weeks to avoid more significant problems, while three percent of four year olds were identified as needing urgent treatments due to severe decay.<sup>75</sup> Arizona had nearly twice the proportion of children aged two to four years with untreated tooth decay (30%) compared to the US as a whole (16%) and were more than three times higher than the Healthy People 2010 target of nine percent. Untreated decay was highest among children whose parents had less than a high school education.<sup>76</sup>

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<sup>71</sup> Division of Behavioral Health Services, Arizona Department of Health Services. (2012). *An Introduction to Arizona's Public Behavioral Health System*. Phoenix, Arizona.

<sup>72</sup> Department of Health and Human Services. Letter to State Directors for Child Welfare. Dated July 11, 2013.

<sup>73</sup> United States Department of Justice, National Task Force on Children Exposed to Violence. (2012). Report of the Attorney General's National Task Force on Children Exposed to Violence.

<sup>74</sup> Office of Oral Health, Arizona Department of Health Services. (2009). *Arizona Oral Health Survey of Preschool Children*.

<sup>75</sup> Arizona Department of Health Services, Office of Oral Health

<sup>76</sup> Arizona State Health Assessment, December 2013. Arizona Department of Health Services.

On the 2012 Family and Community Survey, 68 percent of Coconino parents and caregivers agreed (strongly or somewhat) with the statement: “My child has regular visits with the same dental provider.”<sup>77</sup> Statewide, more parents and caregivers (79%) agreed with that statement.

## Overweight and Obesity

Overweight children are at increased risk for becoming obese. Childhood obesity is associated with a number of health and psycho-social problems, including high blood pressure, high cholesterol, Type 2 diabetes and asthma. Childhood obesity is also strong predictor of adult obesity, with its related health risks. Of particular concern for younger children is research that shows a child who enters kindergarten overweight is more likely to become obese between the ages of five and 14, than a child who is not overweight before kindergarten.<sup>78</sup>

A major new report revealed promising news however: a 43 percent decline in the obesity rate among children aged two to five years-old in the United States over the past decade, from about 14 percent to about 8 percent.<sup>79</sup> While the cause for the decline is not known, possible reasons include reduced consumption of overall calories and sugary drinks by young children, increased breastfeeding and/or state, local or federal policies aimed at reducing obesity. While this decline is indeed promising, the disproportionate rates of obesity in minority and low-income children remain. Nationally among two to five year olds in 2012, about four percent of white children were obese, compared to 11 percent of black children and 17 percent of Hispanic children. This is in spite of fairly similar obesity rates for children under two years old. And while 18 other states have shown a decrease in obesity among low-income preschoolers between 2008 and 2011, Arizona was **not** one of those states.<sup>80</sup>

As noted above, breastfeeding can play a role in obesity prevention for babies. This also holds true for mothers. Exclusively breastfeeding among Arizona WIC participants doubled between 2007 and 2011, although the majority of infants on WIC are still formula fed.<sup>81</sup> The Centers for Disease Control and Prevention also recommend supporting breastfeeding in hospitals and the workplace as a strategy to decrease childhood obesity.<sup>82</sup> Breastfeeding rates in the Coconino Region are considerably short of the Healthy People 2020 targets.

For children aged two to five years of age in Coconino County in 2011, 9 percent were overweight, and an additional 8 percent were obese. These figures are lower than those for the state as a whole (16% overweight and 15% obese).<sup>83</sup>

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<sup>77</sup> First Things First (2014). [2012 Family and Community Survey data]. Unpublished data received from First Things First

<sup>78</sup> Cunningham, S. A., Kramer, M. R., & Venkat Narayan, K. M. (2014). Incidence of Childhood Obesity in the United States. *The New England Journal of Medicine*. 370 (5); 403-411.

<sup>79</sup> Ogden, C. L., Carroll, M. D., Kit, B. K., & Flegal, K. M. (2014). Prevalence of Childhood and Adult Obesity in the United States, 2011-2012. *JAMA*, 2014; 311(8):806-814.

<sup>80</sup> CDC. Vital Signs: Obesity among Low-Income, Preschool-Aged Children — United States, 2008–2011. *MMWR*, August 9, 2013 / 62(31);629-634

<sup>81</sup> Arizona Department of Health Services, Bureau of Nutrition and Physical Activity. (2013). WIC needs assessment.

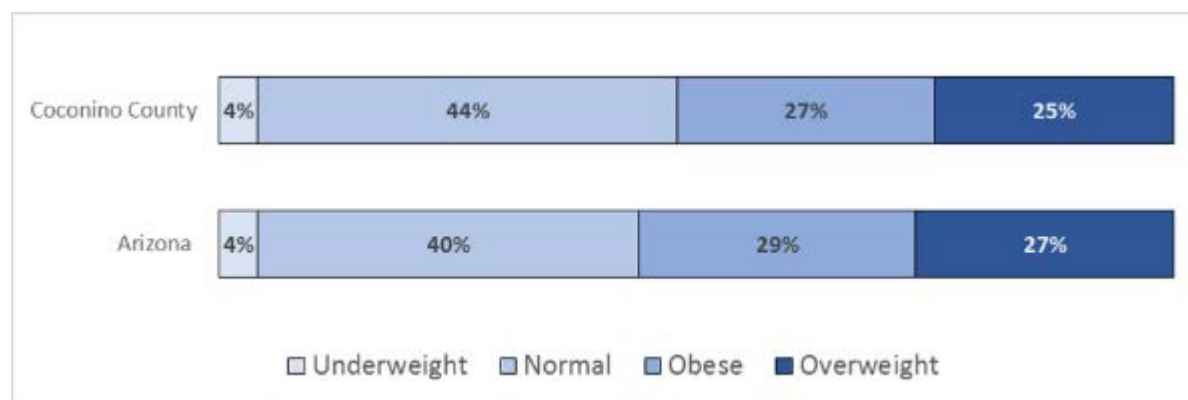
<sup>82</sup> Centers for Disease Control. Childhood Overweight and Obesity; Strategies and Solutions. Last updated February, 2013.

<sup>83</sup> Arizona Department of Health Services, Bureau of Nutrition and Physical Activity. (2013). WIC needs assessment.

**Table 38. Rates of breastfeeding and maternal weight, 2011 WIC participants**

	COCONINO COUNTY	ARIZONA	HEALTHY PEOPLE 2020 TARGET
Percent Breastfed Ever	63%	67%	82%
Percent Breastfed at least 6 months	22%	25%	61%
Percent Breastfed at least 6 months (exclusive breastfeeding)	5%	7%	26%
Percent Overweight (ages 2-5)	9%	16%	-
Percent Obese (ages 2-5)	8%	15%	10%

[http://www.azdhs.gov/azwic/documents/local\\_agencies/reports/wic-needs-assessment-02-22-13.pdf](http://www.azdhs.gov/azwic/documents/local_agencies/reports/wic-needs-assessment-02-22-13.pdf)

**Figure 34. Distribution of pre-pregnancy body-mass index (BMI), Coconino County WIC participants**

Arizona Department of Health Services (2014). [WIC data set]. Unpublished raw data received from the First Things First State Agency Data Request

## Child Fatalities

Since 2005, the Arizona Child Fatality Review Program has reviewed the death of every child who died in the state. In 2012, there were 854 child fatalities (aged birth to 18) in Arizona. Of these, 72 percent (616) were young children between birth and five years old.<sup>84</sup> More than one third of these deaths (325, or 38%) were during the neonatal period (birth to 27 days) and were due to natural causes (prematurity, congenital anomalies, and other medical conditions). About one-fifth (171, or 20%) were during infancy (28 to 365 days), of which almost two-thirds (64%) were undetermined (most of which, 81, or 47%) attributed to Sudden Infant Death Syndrome; SIDS). One in seven deaths in early childhood (120, or 14%) were of children one to four years of age. In this age group, 40 percent of deaths were attributed to homicide, and 15 percent were due to drowning.

<sup>84</sup> Arizona Child Fatality Review Program, 2013 <http://www.azdhs.gov/phs/owch/pdf/cfr/20th-annual-child-fatality-review-report-nov-2013.pdf>



Local Child Fatality Review Teams review each death and make a determination of preventability for each death, after reviewing all available information on the circumstances (in 9% of cases, there were unable to determine preventability). Based on these reviews, the teams concluded that five percent of perinatal deaths, 49 percent of infant deaths, and 49 percent of young child deaths were preventable.

The Child Fatality Review Teams also make a determination of whether the death can be classified as maltreatment by parent, guardian or caretaker, based on their acting, or failing to act, in a way that presents a risk of serious harm to the child. Seven percent (56) of all deaths of children from birth to five were classified as maltreatment. These may have been classified as homicide (e.g. due to abusive head trauma), natural (e.g., prenatal substance use that resulted in premature birth, or failure to seek medical care), or accidental (e.g., unintentional injuries caused by negligence or impaired driving).

In Coconino County, over the six years from 2007 through 2012, there were a total 129 deaths to children under the age of 18.<sup>85</sup> The average number of deaths per year is 21.5. About half of these deaths are to infants less than one year old. In the state of Arizona, there were 5,681 deaths in the same six-year period. About 60 percent of the deaths statewide were to infants less than one year old.

In Coconino County, there were 4.1 deaths per thousand children under 18. The corresponding rate for the state was somewhat smaller, 3.5 deaths per thousand children under 18.

## Substance Use

Exposure to adverse childhood experiences including abuse, neglect and household dysfunction can lead to a variety of consequences, including increased risk of alcoholism and increased likelihood of initiating drug use and experiencing addiction.<sup>86</sup> There was a higher rate of alcohol abuse listed as a reason for hospitalization and emergency room visits in the county than in the state as a whole (Table 39). The rates of discharges for other drugs, and of reports of maternal drug use during pregnancy in hospital records, were lower than in the state as a whole.

**Table 39. Inpatient discharges and emergency room visits with alcohol abuse diagnosis**

GEOGRAPHY	ALCOHOL ABUSE AS FIRST-LISTED DIAGNOSIS			
	EMERGENCY ROOM VISITS	RATES PER 10,000 POPULATION	INPATIENT DISCHARGES	RATES PER 10,000 POPULATION
Coconino County	1,855	138.1	212	15.8
Arizona	19,992	30.8	7,009	10.8

Arizona Department of Health Services (2014). *Hospital Inpatient Discharges & Emergency Room Visits Statistics for Alcohol Abuse, Tables 4 & 7*. Retrieved from <http://azdhs.gov/plan/hip/index.php?pg=alcohol>

<sup>85</sup> Arizona Child Fatality Review Program, 2013

<sup>86</sup> United States Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Injury Prevention. (2008). The effects of childhood stress on health across the lifespan.

**Table 40. Inpatient discharges and emergency room visits with drug dependency diagnosis**

GEOGRAPHY	DRUG DEPENDENCE, ABUSE, OR MISUSE AS FIRST-LISTED DIAGNOSIS			
	EMERGENCY ROOM VISITS	RATES PER 10,000 POPULATION	INPATIENT DISCHARGES	RATES PER 10,000 POPULATION
Coconino County	310	23.1	149	11.1
Arizona	20,235	31.1	10,808	16.5

Arizona Department of Health Services (2014). Hospital Inpatient Discharges & Emergency Room Visits Statistics for Drug Abuse, Table E4. Retrieved from <http://azdhs.gov/plan/hip/index.php?pg=drugs>

**Table 41. Newborns hospitalized due to maternal drug use during pregnancy, 2012**

GEOGRAPHY	TOTAL BIRTHS	NOXIOUS INFLUENCES AFFECTING THE FETUS		FETAL DRUG POISONING				DRUG WITHDRAWAL SYNDROME	
		TOTAL DISCHARGES	RATE**	TOTAL DISCHARGES	RATE	DISCHARGES RELATED TO NARCOTICS	RATE	INFANT DISCHARGES	RATE
Coconino County	1,689	LT25	5.9	LT25	7.7	LT25	5.9	0	0.0
Arizona	85,725	1,190	13.9	1,185	13.8	539	6.3	360	4.2

Arizona Department of Health Services (2014). Hospital Inpatient Discharges & Emergency Room Visits Statistics for Drug Abuse, Tables C1, C2, & C3. Retrieved from <http://azdhs.gov/plan/hip/index.php?pg=drugs>

\*\*Rates are calculated per 1,000 live births

## Family Support

### Child Welfare

Child abuse and neglect can have serious adverse developmental impacts, and infants and toddlers are at the greatest risk for negative outcomes. Infants and toddlers who have been abused or neglected are six times more likely than other children to suffer from developmental delays. Later in life, it is not uncommon for maltreated children to experience school failure, engage in criminal behavior, or struggle with mental and/or physical illness. However, research has demonstrated that although infants and toddlers are the most vulnerable to maltreatment, they are also most positively affected by intervention, which has been shown to be particularly effective with this age group. This research underscores the importance of early identification of and intervention to child maltreatment, as it cannot only change the outlook for young children, but also ultimately save state and federal agencies money in the usage of other services.<sup>87</sup>

Children with disabilities are at increased risk of child abuse, especially neglect. Children with disabilities related to communication, learning, and sensory or behavior disorders appear to be

<sup>87</sup> Zero to Three: National Center for Infants, Toddlers, and Families. (2010). *Changing the Odds for Babies: Court Teams for Maltreated Infants and Toddlers*. Washington, DC: Hudson, Lucy.

at increased risk. Authors of a recent study reviewing the current literature on child abuse, child protection and disabled children also noted that the level of child abuse and neglect of disabled children is likely under-reported and that children with disabilities are in need of greater attention to improve child abuse prevention and protection efforts.<sup>88</sup>

What constitutes childhood neglect (intermittent, chronic and/or severe), and how these varying levels effect children is becoming more clearly understood.<sup>89</sup> From shortly after birth, the child's interaction with caregivers affects the formation of neural connections within the developing brain. If those interactions are inconsistent, inappropriate or absent these connections can be disrupted, and later health, learning and behavior can be affected. As with other issues affecting children, earlier identification and intervention for those experiencing neglect is key, coupled with policies and programs focusing on prevention to stop neglect before it occurs.

The Department of Health and Human Services has outlined a cross-systems approach to promoting the well-being of children who have experienced trauma.<sup>90</sup> The essential components of this approach include (a) periodic functional assessments of the child's well-being, (b) trauma screening to evaluate trauma symptoms and/or history, (c) an in-depth, clinical mental-health assessment, and (d) outcome measurement and progress monitoring to assess the appropriateness of services at both the individual and systems level.

### ***Child Protective Services (CPS)***

In 2013, the Arizona Department of Economic Security's (DES) Division of Children, Youth and Families (DCYF) was the state-administrated child welfare services agency that oversaw Child Protective Services (CPS), the state program mandated for the protection of children alleged to be abused and neglected. This program receives, screens and investigates allegations of child abuse and neglect, performs assessments of child safety, assesses the imminent risk of harm to the children, and evaluates conditions that support or refute the alleged abuse or neglect and need for emergency intervention. CPS also provides services designed to stabilize a family in crisis and to preserve the family unit by reducing safety and risk factors.

On May 29, 2014, the Arizona legislature voted almost unanimously to establish and fund the new cabinet-level Department of Child Safety (DCS). The new department will focus on and house the state child welfare programs, including CPS, foster care, adoption, and the Comprehensive Medical and Dental Program.<sup>91</sup>

The Arizona Department of Economic Security (DES) provided data on the number of children who were removed during fiscal years 2011-2013 and who were age 5 or younger at the time they were removed during that fiscal year. Table 42 shows these numbers for the Coconino

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<sup>88</sup> Stalker, K., & McArthur, K. (2012). Child abuse, child protection and disabled children: A review of recent research. *Child Abuse Review*, 21(1), 24-40.

<sup>89</sup> Harvard University, Center on the Developing Child. (2013). *InBrief: The science of neglect*.

<sup>90</sup> Department of Health and Human Services. Letter to State Directors for Child Welfare. Dated July 11, 2013.

<sup>91</sup> [www.azgovernor.gov/dms/upload/PR\\_052914\\_DCSBillSigning.pdf](http://www.azgovernor.gov/dms/upload/PR_052914_DCSBillSigning.pdf)

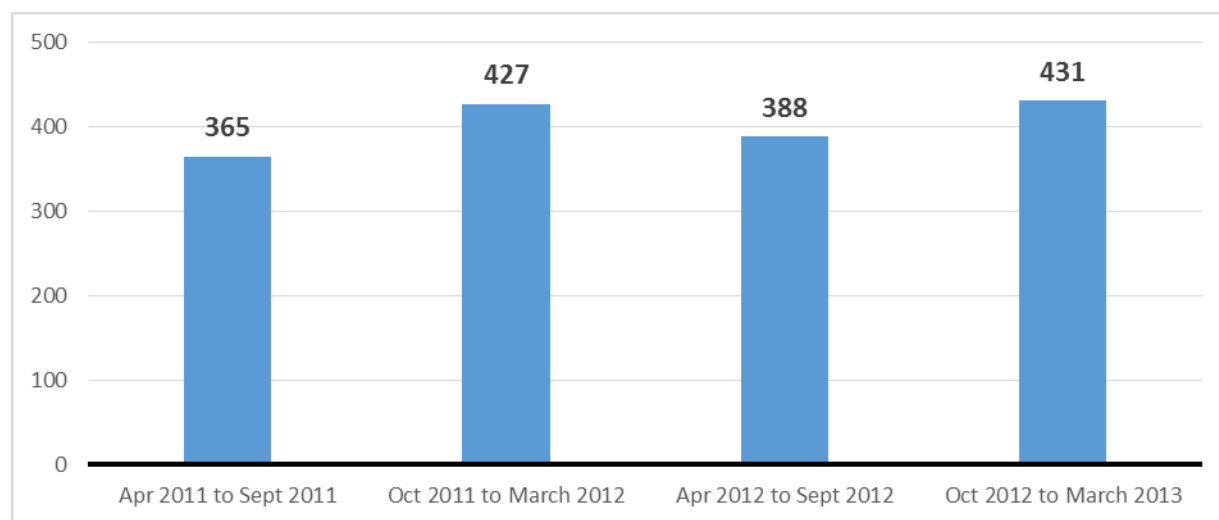
Region, the hubs, the county and the state. The number of children who were removed between the ages of birth and five decreased between FY2012 and FY2013 in Coconino region and Coconino county, while increasing in the state (See Table 42). Child welfare reports, on the other hand, while fluctuating, have seen an overall increase between 2011 and 2013 in Coconino county. (See Figure 35.)

**Table 42. Young children removed from the home by CPS, 2011 to 2013**

GEOGRAPHY	POPULATION (AGES 0-5)	CHILDREN (AGES 0-5) REMOVED BY CPS		
		2011	2012	2013
Coconino Region	9,723	<49	<69	< 61
Southern Hub	6,811	29	29	25
Winslow Hub	966	10	20	16
Northern Hub	970	LT10	LT10	LT10
Hopi Hub				
Grand Canyon Hub	151	0	LT10	LT10
Havasupai Hub	64	0	0	0
Coconino County	10,777	35	35	31
Arizona	546,609	3,176	4,231	4,293

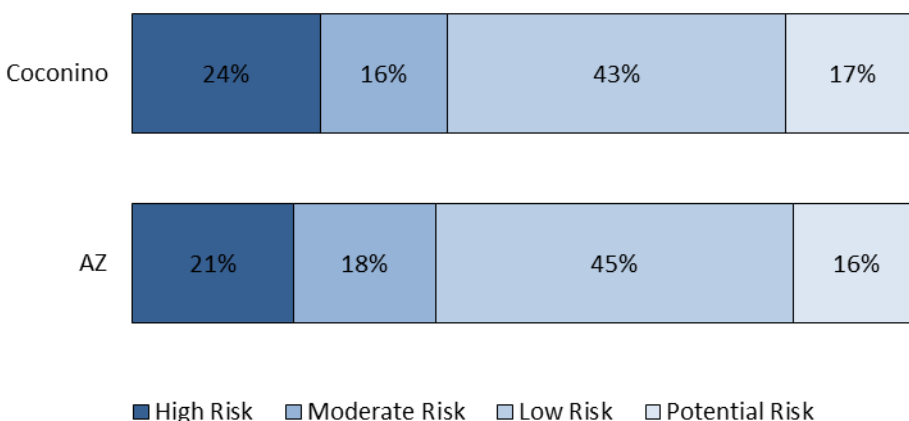
Arizona Department of Economic Security (2014). Unpublished raw data received from the First Things First State Agency Data Request.

**Figure 35. Numbers of child-welfare reports in Coconino County, April 2011 to March 2013**



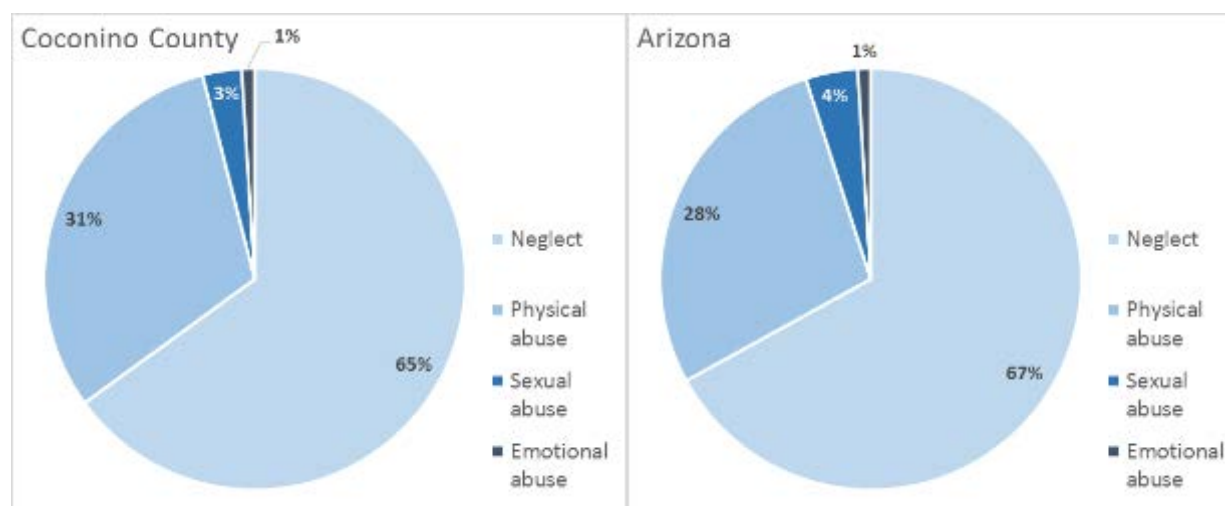
Arizona Department of Economic Security (2014). Child Welfare Reports. Retrieved from <http://public.tableausoftware.com/profile/#!/vizhome/LandingPage/LandingPage>

**Figure 36. Assessed risk of child-welfare reports in Coconino County, October 2010 to March 2012**



Arizona Department of Economic Security (2014). *Child Welfare Reports*. Retrieved from <http://public.tableausoftware.com/profile/#!/vizhome/LandingPage/LandingPage>

**Figure 37. Types of maltreatment in child-welfare reports, October 2010 to March 2012**



Arizona Department of Economic Security (2014). *Child Welfare Reports*. Retrieved from <http://public.tableausoftware.com/profile/#!/vizhome/LandingPage/LandingPage>

### **Juvenile justice involvement by County**

The Attorney General's National Task Force on Children Exposed to Violence<sup>92</sup> recommends that the Juvenile Justice System screen youth entering the system for violence-exposure and offer trauma-informed treatment as an essential component to rehabilitating these youth. In addition, they assert that juvenile justice employees need to understand that trauma changes brain chemistry in these violence-exposed youth by limiting impulse control, the understanding of consequences and the ability to tolerate conflict.

<sup>92</sup> United States Department of Justice, National Task Force on Children Exposed to Violence. (2012). Report of the Attorney General's National Task Force on Children Exposed to Violence.

According to the Arizona's Juvenile Court Counts summary for fiscal year 2012, there were 33,617 juveniles referred at least once to Arizona's juvenile courts. In Coconino County, during FY 2012, 918 juveniles were referred and 75 juveniles were detained.<sup>93</sup>

## **Foster Parenting**

Arizona's foster parents care for approximately half of the children who have been removed from their homes in the state. In March 2013, there were 3,576 licensed foster homes throughout Arizona. Between October of 2012 and March of 2013, there was a net decrease of 18 foster homes. Previously, between April and September of 2012 there was a net increase of 252 foster homes, which was the first time since 2009 that more foster homes were opened than closed in the state.<sup>94</sup>

A 2012 study assessing Arizona foster parent's satisfaction with and likelihood to continue as a foster parent identified a number of issues affecting foster parents, including lack of support from CPS, monetary constraints from continuing budget cuts, and a desire for more social, emotional and educational support to enhance their role as a foster parent.<sup>95</sup> The study authors made the following recommendations to improve the Arizona foster care system:

- Include the foster parent as an essential part of the team
- Provide more practical AND emotional support to foster parents
- Pay attention to the needs and wants of foster parents (appointment times)
- Communication training for foster parents and case managers
- Ask what specific information foster parents want and include the information in trainings
- Monetary support is necessary for foster parents to continue, and
- Listen to foster parents' suggestions when enacting policy changes." (p. 8)

## **Incarcerated Parents**

A 2011 report from the Arizona Criminal Justice Commission (ACJC) estimates that in Arizona, about three percent of youth under 18 have one or more incarcerated parent. This statistic includes an estimated 6,194 incarcerated mothers and an estimated 46,873 incarcerated fathers, suggesting that in Arizona, there are over 650 times more incarcerated fathers than incarcerated mothers.<sup>96</sup> More recent data from the Arizona Youth Survey corroborate this estimation. The Arizona Youth Survey is administered to 8th, 10th, and 12th graders in all 15 counties across Arizona every other year. In 2012, three percent of youth indicated that they currently have a parent in prison. Fifteen percent of youth indicated that one of their parents

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<sup>93</sup> Administrative Office of the Courts, Juvenile Justice Services Division. Arizona's Juvenile Court Counts; Statewide Statistical Information FY2012.

<sup>94</sup> [www.azdes.gov/uploadedFiles/Children\\_Youth\\_and\\_Families/Child\\_Protective\\_Services\\_%28CPS%29/CPS\\_Oversight\\_MW\\_FosterHomes.pdf](http://www.azdes.gov/uploadedFiles/Children_Youth_and_Families/Child_Protective_Services_%28CPS%29/CPS_Oversight_MW_FosterHomes.pdf)

<sup>95</sup> Geiger, J.M., Hayes, M.J., & Lietz, C.A. (2012). Arizona foster parent study 2012. School of Social Work, Arizona State University, Phoenix, AZ.

<sup>96</sup> Arizona Criminal Justice Commission. Statistical Analysis Center. (2011). *Children of Incarcerated Parents: Measuring the Scope of the Problem*. USA. Phoenix: Statistical Analysis Center Publication.

has previously been to prison. This suggests that approximately one in seven adolescents in Arizona have had an incarcerated parent at some point during their youth.<sup>97</sup>

In Coconino County, approximately 2 percent of youth indicated that they currently had an incarcerated parent, and 18 percent, nearly one in five, indicated that they had a parent who had previously been incarcerated.

Children with incarcerated parents represents a population of youth who are at great risk for negative developmental outcomes. Previous research demonstrates that parental incarceration dramatically increases the likelihood of marital hardship, troubling family relationships, and financial instability. Moreover, children who have incarcerated parents commonly struggle with stigmatization, shame and social challenges, and are far more likely to be reported for school behavior and performance problems than children who do not have incarcerated parents.<sup>98</sup> In recent studies, even when caregivers have indicated that children were coping well with a parent's incarceration, the youth expressed extensive and often secretive feelings of anger, sadness, and resentment. Children who witness their parents arrest also undergo significant trauma from experiencing that event and often develop negative attitudes regarding law enforcement.<sup>99</sup>

The emotional risk to very young children (aged birth through five) is particularly high. Losing a parent or primary caregiver to incarceration is a traumatic experience, and young children with incarcerated parents may exhibit symptoms of attachment disorder, post-traumatic stress disorder, and attention deficit disorder.<sup>100</sup> Studies show that children who visit their incarcerated parent(s) have better outcomes than those who are not permitted to do so<sup>101</sup> and the Arizona Department of Corrections states that it endeavors to support interactions between parents and incarcerated children, as long as interactions are safe.<sup>102</sup> Research suggests that strong relationships with other adults is the best protection for youth against risk factors associated with having an incarcerated parent. This person can be, but does not necessarily need to be, the caregiver of the child. Youth also benefit from developing

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<sup>97</sup> Arizona Criminal Justice Commission. (2012). *2012 Arizona Youth Survey*. Unpublished data.

<sup>98</sup> Arizona Criminal Justice Commission Statistical Analysis Center. (2011). *Children of Incarcerated Parents: Measuring the Scope of the Problem*. USA. Phoenix: Statistical Analysis Center Publication.

<sup>99</sup> Children of incarcerated parents (CIP). Unintended victims: a project for children of incarcerated parents and their caregivers. <http://nau.edu/SBS/CCJ/Children-Incarcerated-Parents/>

<sup>100</sup> Adalist-Estrin, A., & Mustin, J. (2003). *Children of Prisoners Library: About Prisoners and Their Children*. Retrieved from <http://www.fcnetwork.org/cpl/CPL301-ImpactofIncarceration.html>.

<sup>101</sup> Adalist-Estrin, A. (1989). *Children of Prisoners Library: Visiting Mom and Dad*. Retrieved from <http://www.fcnetwork.org/cpl/CPL105-VisitingMom.html>.

<sup>102</sup> Arizona Criminal Justice Commission. Statistical Analysis Center. (2011). *Children of Incarcerated Parents: Measuring the Scope of the Problem*. USA. Phoenix: Statistical Analysis Center Publication.



supportive relationships with other adults in their community.<sup>103</sup> Other studies have suggested that empathy is a strong protective factor in children with incarcerated parents.<sup>104</sup>

Regional and even statewide resources for caregivers of children with incarcerated parents are scarce. The Kinship and Adoption Resource and Education (KARE) program, an Arizona Children's Association initiative, offers online informational brochures such as Arizona Family Members Behind Bars for caregivers of incarcerated parents. The Children of Incarcerated Parents Project (CIP) out of Northern Arizona University offers a booklet of questions and answers for children.<sup>105</sup> The Children of Prisoner's Library is an online library of pamphlets designed for caregivers and health care providers of children with incarcerated parents.

## Domestic Violence

Domestic violence includes both child abuse and intimate partner abuse. When parents (primarily women) are exposed to physical, psychological, sexual or stalking abuse by their partners, children can get caught up in a variety of ways, thereby becoming direct or indirect targets of abuse, potentially jeopardizing their physical and emotional safety.<sup>106</sup> Physically abused children are at an increased risk for gang membership, criminal behavior, and violent relationships. Child witnesses of domestic violence are more likely to be involved in violent relationships.<sup>107</sup>

Promoting a safe home environment is key to providing a healthy start for young children. Once violence has occurred, trauma-focused interventions are recommended.<sup>108</sup> In order for interventions to be effective they must take the age of the child into consideration since children's developmental stage will affect how they respond to trauma. While trauma-specific services are important (those that treat the symptoms of trauma), it is vital that all the providers a child interacts with provide services in a trauma-informed manner (with knowledge of the effects of trauma to avoid re-traumatizing the child). Children exposed to violence need ongoing access to safe, reliable adults who can help them regain their sense of control.

According to the Domestic Violence Shelter Fund Annual Report for 2013, there are four domestic violence shelters in the region, which served 181 adults and 143 children in 2013.

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<sup>103</sup> La Vigne, N. G., Davies, E. & Brazzell, D. (2008). *Broken bonds: Understanding and addressing the needs of children with incarcerated parents*. Washington, DC: The Urban Institute Justice Policy Center.

<sup>104</sup> Dallaire, D. H. & Zeman, J. L. (2013). Empathy as a protective factor for children with incarcerated parents. *Monographs of the Society for Research in Child Development*, 78(3), 7-25.

<sup>105</sup> This booklet can be accessed at: [http://nau.edu/uploadedFiles/Academic/SBS/CCJ/Children-Incarcerated\\_Parents/\\_Forms/Childs%20Booklet%20correct.pdf](http://nau.edu/uploadedFiles/Academic/SBS/CCJ/Children-Incarcerated_Parents/_Forms/Childs%20Booklet%20correct.pdf)

<sup>106</sup> Davies, Corrie A.; Evans, Sarah E.; and DiLillo, David K., "Exposure to Domestic Violence: A Meta-Analysis of Child and Adolescent Outcomes" (2008). Faculty Publications, Department of Psychology. Paper 321. <http://digitalcommons.unl.edu/psychfacpub/321>

<sup>107</sup> United States Department of Justice, National Task Force on Children Exposed to Violence. (2012). Report of the Attorney General's National Task Force on Children Exposed to Violence.

<sup>108</sup> United States Department of Justice, National Advisory Committee on Violence against Women. (2012). Final report.

**Table 43. Domestic violence shelters, and services provided (2013)**

DOMESTIC VIOLENCE SHELTERS	POPULATION SERVED			UNITS OF SERVICE PROVIDED			
	Total Served	Adults	Children	Bed Nights	Average Length of Stay (days)	Hours of Support Services	Hotline and I&R Calls
Northland Family Help Center (Flagstaff)	130	89	41	7,213	55	5,353	327
Page Regional Domestic Violence Services (Page)	135	62	73	4,445	33	1,507	1,441
Alice's Place (Winslow)	59	30	29	1,946	33	510	176
Hope Cottage (Flagstaff)							
<b>TOTAL</b>	<b>324</b>	<b>181</b>	<b>143</b>	<b>13,604</b>		<b>7,370</b>	<b>1,944</b>

Arizona Department of Economic Security (2013). Domestic Violence Shelter Fund Annual Report for FY 2013. Retrieved from [https://www.azdes.gov/InternetFiles/Reports/pdf/dv\\_shelter\\_fund\\_report\\_sfy\\_2013.pdf](https://www.azdes.gov/InternetFiles/Reports/pdf/dv_shelter_fund_report_sfy_2013.pdf)

Note: Data for Hope Cottage were unavailable.

## Food Security

Food insecurity is defined as a “household-level economic and social condition of limited or uncertain access to adequate food.”<sup>109</sup> Episodes of food insecurity are often brought on by changes in income or expenses caused by events like job loss, the birth of a child, medical emergencies, or an increase in gas prices, all of which create a shift in spending away from food.<sup>110</sup> Participating in Nutritional Assistance (SNAP) has been shown to decrease the percentage of families facing food insecurity in both all households (10.6%) and households with children (10.1%) after six months in the SNAP program.<sup>111 112</sup>

In 2012, 18 percent of all Arizonans and 28 percent of children in Arizona experienced food insecurity.<sup>113</sup> In Coconino County, 18 percent of all residents, and 27 percent of children under 18 years of age faced food insecurity. That more than 8,500 children in the county are food-insecure would suggest that expansion of available school-based free breakfast and lunch programs such as use of the “community eligibility” provision would be advised, particularly since approximately 70 percent of the food-insecure children in Coconino County would likely be eligible for such programs.<sup>114</sup>

<sup>109</sup> United States Department of Agriculture. Definitions of Food Security.

<sup>110</sup> United States Department of Agriculture, Food and Nutrition Service. (2013). Snap food security in-depth interview study: Final report.

<sup>111</sup> Feeding America (2014). Map the Meal Gap, 2012.

<sup>112</sup> United States Department of Agriculture, Food and Nutrition Service, Office of Policy Support. (2013). Measuring the effect of supplemental nutrition assistance program (SNAP) participation on food security executive summary.

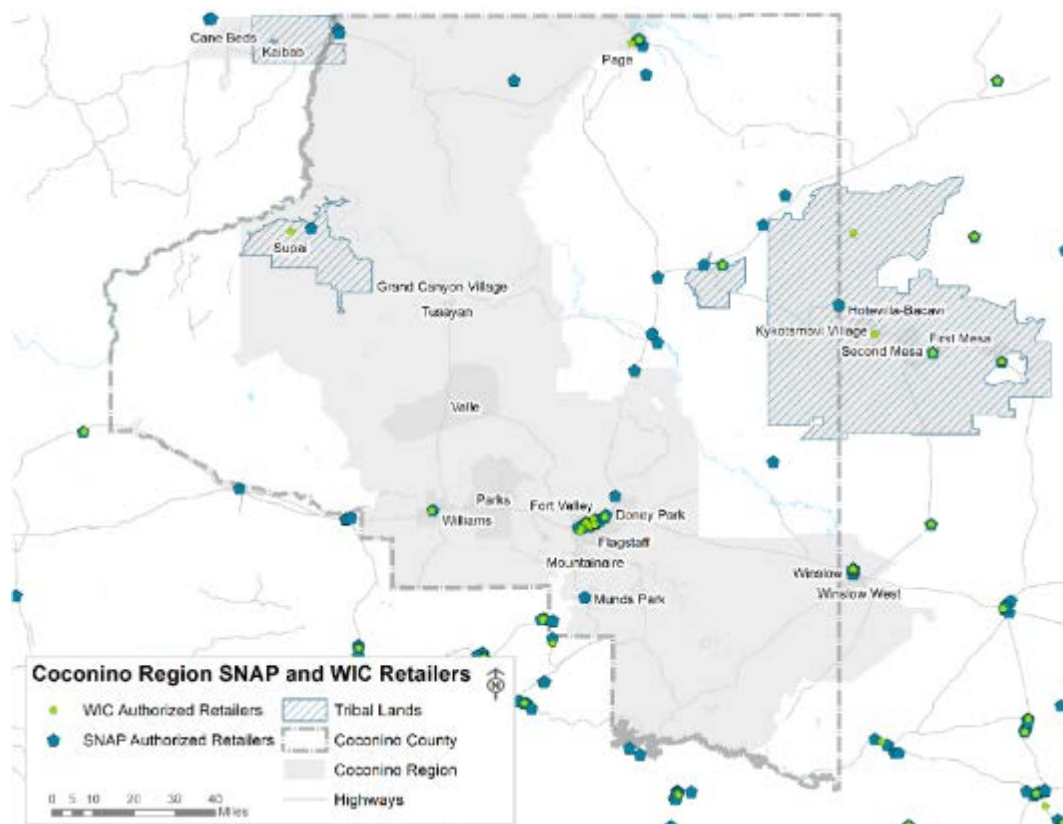
<sup>113</sup> Center on Budget and Policy Priorities (CBPP) and the Food Research and Action Center (FRAC) (2013). Community Eligibility and Making High-Poverty Schools Hunger Free.

<sup>114</sup> Feeding America (2014). Map the meal gap, 2014: Child food insecurity in Arizona by county in 2012.

The Flagstaff Family Food Center serves meals every day, distributes emergency food boxes to local families, and distributes packaged meals to non-profits, the homeless, and school children.<sup>115</sup> The Circle of Page prepares meals for the community on Mondays and Wednesdays, and has a food pantry which is open Tuesdays and Thursdays.<sup>116</sup>

The map in Figure 38 shows the locations of food retailers which are authorized by the SNAP or WIC programs. The distribution of retailers resembles the distribution of the population, except that there are no retailers in Parks or Valle, and few in the areas surrounding Flagstaff (such as Kachina Village, Mountainaire, Bellemont, and Fort Valley).

**Figure 38. Geographic distribution of SNAP and WIC authorized retailers**



Source: US Department of Agriculture, Arizona Department of Economic Security

## Homelessness

In Arizona in 2013, 27,877 adults and children experienced homelessness. The population of rural counties makes up a quarter of the state population, but only nine percent of those experiencing homelessness in 2013.<sup>117</sup> Children are defined as homeless if they lack a fixed, regular, and adequate night-time residence. According to this definition, 31,097 children in Arizona were reported as homeless in 2013. Almost three-quarters of these children were living

<sup>115</sup> <http://www.hotfood.org/>

<sup>116</sup> <https://sites.google.com/site/circleofpage6/about-our-organization>

<sup>117</sup> Homelessness in Arizona Annual Report 2013. Arizona Department of Economic Security.

temporarily with another families, with the rest residing in shelters, motels, or unsheltered conditions.<sup>118</sup>

School districts collect data on the number of economically disadvantaged and homeless students in their schools. As defined by the Arizona Department of Education, youth at economic disadvantage includes children who are homeless, neglected, refugee, evacuees, unaccompanied youth, or have unmet needs for health, dental or other support services. As can be seen in Table 44, although the level of economic disadvantage tends to be high, the number of homeless students in school districts in the region is low, and lower than the state percentage, except in the Williams district.

**Table 44. Economic disadvantage and homelessness, by school district**

SCHOOL DISTRICT	NUMBER OF SCHOOLS	NUMBER OF STUDENTS	ECONOMICALLY DISADVANTAGED STUDENTS		HOMELESS STUDENTS	
Cedar Unified District						
Flagstaff Unified District	13	5,467	2,702	49%	152	3%
Fredonia-Moccasin Unified District	1	151	112	74%	0	0%
Grand Canyon Unified District	1	186	116	62%	0	0%
Maine Consolidated School District	1	86	34	40%	0	0%
Page Unified District	3	1,591	1,086	68%	34	2%
Williams Unified District	1	303	220	73%	65	21%
Winslow Unified District	3	1,119	1,119	100%	0	0%
All Arizona schools	11,316	610,079	311,879	51%	10,800	2%

Arizona Department of Education (2014). [Preschool and Elementary Needs data set]. Unpublished raw data received from the First Things First State Agency Data Request

## Parental Involvement

Parental involvement has been identified as a key factor in the positive growth and development of children,<sup>119</sup> and educating parents about the importance of engaging in activities with their children that contribute to development has become an increasing focus.

First Things First Family and Community Survey data is designed to measure many critical areas of parent knowledge, skills, and behaviors related to their young children. The 2012 Family and Community Survey collected data illustrating parental involvement in a variety of activities

<sup>118</sup> Homelessness in Arizona Annual Report 2013. Arizona Department of Economic Security.

<sup>119</sup> Bruner, C. & Tirmizi, S. N. (2010). *The Healthy Development of Arizona's Youngest Children*. Phoenix, AZ: St. Luke's Health Initiatives and First Things First.

known to contribute positively to healthy development. The table below shows results for the region and the state for some of these activities. There were 147 respondents living in the Coconino Region.

About three-quarters of parents and caregivers in the Coconino Region (75%) reported reading to their children six or seven days per week. Statewide, only half (51%) reported doing so. Coconino respondents also reported more frequently telling stories or singing songs (68%), compared to the state (51%).

**Table 45. Frequency of family literacy activities, from the 2012 Family and Community Survey**

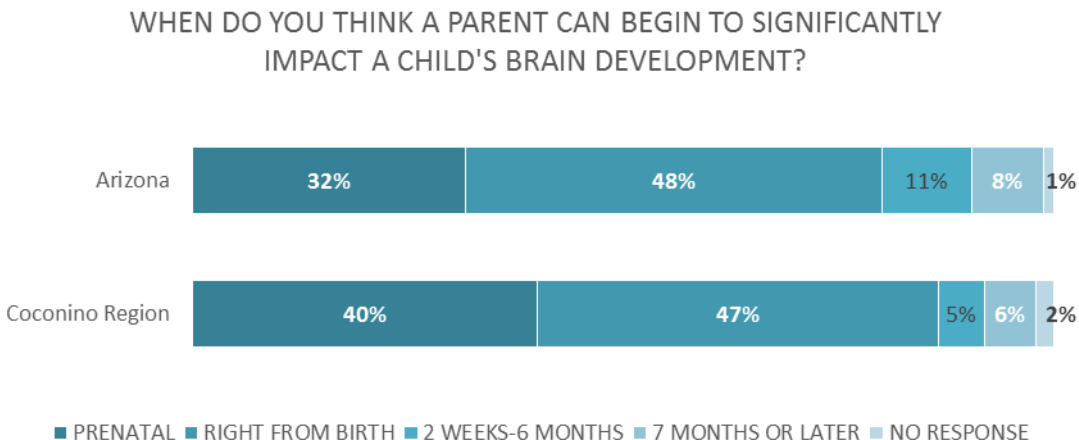
	COCONINO REGION		ARIZONA	
	5 or fewer days a week	6 or 7 days a week	5 or fewer days a week	6 or 7 days a week
During the past week, how many days did you or other family members read stories to your child/children?	25%	75%	45%	51%
During the past week, how many days did you or other family members tell stories or sing songs to your child/children?	30%	68%	45%	51%
During the past week, how many days did your child/children scribble, pretend draw, or draw with you or another family member?	39%	49%	46%	47%

Source: First Things First (2014). [2012 Family and Community Survey data]. Unpublished data received from First Things First.

Note: Percentages may add to less than 100% because of non-response.

## Parent Education

Parenting education supports and services can help parents better understand the impact that a child's early years have on their development and later readiness for school and life success. The Family and Community Survey, 2012, collected data illustrating parental knowledge about healthy development. More respondents in the Coconino Region showed an understanding that brain development can be affected from very early on (87% prenatally or right from birth) than respondents across the state as a whole (80% prenatally or right from birth).

**Figure 39. Parent impact on child brain development, from the 2012 Parent and Community Survey**

Source: First Things First (2014). [2014 Family and Community Survey data]. Unpublished data received from First Things First.

## Home Visitation Programs

Home visitation programs offer a variety of family-focused services to pregnant mothers and families with new babies as well as young children with risk factors for child abuse or neglect, with the goal of improving child health and developmental outcomes and preventing child abuse. They address issues such as maternal and child health, positive parenting practices, encouraging literacy, safe home environments, and access to services. They can also provide referrals for well child checks and immunizations, developmental screenings, and provide information and resources about learning activities for families.

A systematic review conducted by the non-federal Task Force on Community Preventive Services found that early childhood home visitation results in a 40% reduction in episodes of abuse and neglect. Not all programs were equally effective; those aimed at high-risk families, lasting two years or longer, and conducted by professionals (as opposed to trained paraprofessionals) were more successful.<sup>120</sup>

The Arizona Department of Health Services (ADHS), in their 2010 needs assessment for home visiting programs (the most recent for which data are available), reported that between 15 and 20 percent of children in the county were served by a variety of home visiting services. Of the communities in the region, the Winslow area and the Hopi Nation were identified as in particular need for services.<sup>121</sup>

<sup>120</sup> Centers for Disease Control and Prevention. First reports evaluating the effectiveness of strategies for preventing violence: early childhood home visitation and firearms laws. Findings from the Task Force on Community Preventive Services. *MMWR* 2003; 52(No. RR-14):1-9.

<sup>121</sup> Arizona Department of Health Services (2010). Affordable Care Act Maternal, Infant and Early Childhood Home Visiting Program Needs Assessment.

## **Public Information and Awareness and System Coordination**

The primary quantitative data source for Public Awareness in the region is the First Things First Family and Community survey (FCS) (First Things First, 2012).

### **Data from the 2012 Family and Community Survey**

The overall results of the 2012 First Things First Family and Community Survey demonstrated higher levels of satisfaction with available information and resources in the region and lower levels of dissatisfaction with coordination and communication among providers in the region, compared to the state. For example:

- 55 percent of Coconino Region respondents indicated they were “very satisfied” with the community information and resources available to them about their children’s development and health, compared to 39 percent across the state.
- 41 percent of respondents in the Coconino Region indicated they were “somewhat” or “very dissatisfied” with how care providers and government agencies work together and communicate with each other, compared to 44 percent for the state as a whole.
- 79 percent of Coconino parents and caregivers agreed (strongly or somewhat) with the statement “It is easy to locate services that I want or need.” This was similar to the statewide average of 74 percent.

## Summary and Conclusion

This needs and assets report is the fourth biennial assessment of early education, health, and family support in the Coconino Region. In addition to providing an overview of the region, this report looks more closely at some of the community-level variation within it. This closer look is important, because the higher population of the Southern Hub tends to overshadow the community features of the smaller hubs when only examined at the regional level.

Based on the data assembled, it is clear that the region has substantial strengths. First Things First Community Survey results indicate that families of young children in the region report higher rates of satisfaction with available services and with coordination and communication of services in the region than in the state as a whole. A relatively high proportion of parents and other caregivers in the region report engaging their children in early literacy activities, including reading, singing and storytelling, on almost a daily basis. In the Havasupai Hub, nearly all of the local children participate in the Head Start program. Unemployment rates in Flagstaff, where a large proportion of young children live, are low, and the adult educational attainment in that area tends to be high. Graduation rates in most school districts are higher than the state rate, and an increasing proportion of new mothers report having at least a high school education.

A table containing a summary of identified regional assets can be found in Appendix A.

Although there are considerable strengths, there continue to be substantial challenges to fully serving the needs of young children, especially in the more remote areas of the region. Many of these have been recognized as ongoing issues by the Coconino Regional Partnership Council, and are being addressed by current First Things First-supported strategies in the region. Some of these needs, and the strategies proposed to deal with them, are highlighted below. A table containing a summary of identified regional challenges can be found in Appendix B, and the First Things First Coconino Regional Partnership Council planned strategies for fiscal year 2015 is provided in Appendix C.

- **A lack of affordable, high quality and accessible child care** – Certain parts of the region appear to be underserved by child care centers. There are few if any registered child care locations in Valle, Bellemont, Fort Valley, Doney Park, Kachina Village, or Mountaineer, even though these places are well populated with children under the age of six. Although the estimates of the proportion of 3- and 4-year-old children enrolled in an early childhood setting in the region tend to be higher than the state rate, the Winslow Hub has a lower rate of estimated enrollment. In addition, there are high rates of low-income, single working parents in the region who are likely to need child care. Four strategies in the region are focusing on this crucial area. Quality First provides supports so that existing and new centers in the region can continue to improve the quality of the care they provide. To address the challenge of affordability, Quality First child care scholarships allow parents to continue to utilize the services of licensed, quality early child care and education centers. Supports are also provided to informal caregivers through the Family, Friends and Neighbors strategy that provides training and



financial resources to improve the care that children receive in unregulated child care homes. The Summer Transition to Kindergarten strategy provides classroom experiences for children who may not have had a preschool experience, to help prepare them and their families for that important transition.

- **Increased efforts to facilitate uptake of professional development opportunities for early childhood education professionals** – Two funding strategies are targeted towards promoting the availability of a skilled early childhood workforce in the area by providing scholarships for higher education and credentialing to early care and education teachers and by providing financial incentives to high quality teachers. Although adult educational attainment is high in some parts of the region, it is much lower in others. The lack of a college-going culture, as identified by low rates of residents with college degrees in all but the Southern Hub, as well as the remote location of many of the early education staff, may be barriers to professionals in the region to enroll in college courses. Because of this, there may need to be specific, localized recruitment, support and follow-up efforts in order to facilitate take up of the program.
- **Support for parents as their children’s first teacher** –With low rates of enrollment in child care and education settings in some areas, and low levels of adult educational attainment in some of those same areas, parents are likely to need additional guidance to help them make sure their children arrive at kindergarten ready to learn. Three strategies are provided to help support families in this way. Home visitation services provide information on child development, health and safety, and early learning and literacy, and connects parents with additional community resources. Classes are also provided in community-based settings to provide information on parenting, child development and problem-solving skills. Finally, pediatric practices are engaged in supporting families in encouraging early literacy through Reach Out and Read. Outreach to support early literacy in areas of the region where children are falling far below grade level in reading is particularly important.
- **A need to improve coverage for and continuity of care in health and oral health services for young children**—Although the overall ratio of population to primary care providers is better in the region than it is in the state as a whole, more remote areas of the state have some access issues. Parents in the region participating in the First Things First Family and Community Survey reported a lower rate of regular visits at the same doctor’s office or with the same dental provider than they did statewide. In addition, numbers of children being served through the Department of Developmental Disabilities have been falling, suggesting a possible gap in special need services in the region. Higher rates of uninsured families and children in the region are likely to be a barrier to care.

Three regional strategies attempt to address some of these gaps. Care Coordination provides health insurance enrollment assistance, conducts developmental and sensory screenings, and helps connect families with appropriate coordinated care. Oral Health screenings and fluoride varnish are provided in a variety of community-based settings to help decrease preventable oral health problems. And Child Care Health Consultation provides support for child care providers to attain and maintain high health and safety standards for the children in their care.

This report also highlighted some additional needs that could be considered as targets by stakeholders in the region.

- **Relatively low rates of enrollment in SNAP, TANF, and WIC programs.** Given the relatively high level of early childhood poverty in the region, outreach programs may be able to increase enrollment among eligible residents, providing additional supports for families who may be under financial stress.
- **Low enrollment by residents in the Havasupai Hub in third-party insurance.** Facilitating enrollment in Medicaid or private insurance plans can offer benefits both at the individual and tribal community levels. Community members who enroll in a health insurance plan can gain increased access to health care services by being able to receive care through their insurance plan providers, Indian Health Service facilities, Tribes and Tribal Organizations, and Urban Indian Organizations. At the community level, tribes can benefit when IHS or tribally-operated 638 facilities bill an outside insurer for medical services resulting in savings in Contract Health Service funds. The money saved through outside billing (third-party billing) can then be used in other ways to benefit all tribal citizens.
- **A high rate of births to teen mothers in some areas.** Because of the impact that unplanned teen births can have on the life of a teen mother and the health and welfare of her child (including rates of preterm and low-birth weight births in the region that are higher than the state overall), finding ways to engage these young women (and their partners) in programs that encourage and provide early prenatal care for expectant teen mothers, as well as education and support to enable them to continue their education and care well for their infant, are needed.
- **High housing costs.** On average, housing costs are about 25 percent more in Coconino County than in the state as a whole. About 75 percent of renters with very low incomes have been classified as “housing-cost burdened.” This is likely to have substantial impacts on families in the region, who may have to make tough choices between housing and other family needs. According to school district reports, the Williams Unified District has a rate of homelessness (21%) much higher than any of the region’s

other school districts. Outreach regarding information on housing services could be helpful in many areas.

Although there are many challenges for families, leveraging the unique opportunities for cross-community collaboration and resource sharing in the Coconino Region can help those there respond creatively to these challenges and to support the health, welfare and development of the diverse families and young children who live there.

## Appendices

### Appendix A. Table of Regional Assets

<i>First Things First Coconino Regional Assets</i>
Higher rates of satisfaction with available services and with coordination and communication of services in the region than in the state as a whole
Areas of the region have low unemployment
In the Havasupai Hub, nearly all of the local children participate in the Head Start program
Higher than average rates of parents engaging children in early literacy activities, such as reading, storytelling, and singing
Higher than state graduation rates in many districts
Increasing proportion of new mothers have at least a high school education
Relatively low rates of childhood obesity, compared to other parts of Arizona
Relatively high rates of prenatal care, starting in the first trimester and receiving an adequate number of visits

### Appendix B. Table of Regional Challenges

<i>First Things First Coconino Regional Challenges</i>
A high percentage of young children in the region are living in poverty
Low rates of enrollment in early education settings in some areas
Communities with low adult educational attainment
High rates of teen births in some areas
Percent of low birthweight births exceeds Healthy People 2020 target
High housing costs
Low rates of enrollment by those eligible in public assistance programs (SNAP, TANF, WIC)
High rates of uninsured families and children

## Appendix C: Table of Regional Strategies, FY 2015

GOAL AREA	STRATEGY	STRATEGY DESCRIPTION
Quality and Access	Quality First	Supports provided to early care and education centers and homes to improve the quality of programs, including: on-site coaching; program assessment; financial resources; teacher education scholarships; and consultants specializing in health and safety practices.
	Quality First Scholarships	Provides scholarships to children to attend quality early care and education programs. Helps low-income families afford a better educational beginning for their children.
	Family, Friends, & Neighbors	Supports provided to family, friend and neighbor caregivers include training and financial resources. Improves the quality of care and education that children receive in unregulated child care homes
	Summer Transition to Kindergarten	Provides first time classroom experiences for children who are about to begin kindergarten, and information to their parents. Helps children who may not have had any preschool experiences (and their families) to prepare for the transition to kindergarten.
Professional Development	FTF Professional REWARD\$	Improves retention of early care and education teachers through financial incentives. Keeps the best teachers with our youngest kids by rewarding longevity and continuous improvement of their skills.
	Scholarships TEACH	Provides scholarships for higher education and credentialing to early care and education teachers. Improves the professional skills of those providing care and education to children 5 and younger.
Family Support	Home Visitation	Provides voluntary in-home services for infants, children and their families, focusing on parenting skills, early physical and social development, literacy, health and nutrition. Connects families to resources to support their child's health and early learning. Gives young children stronger, more supportive relationships with their parents through in-home services on a variety of topics, including parenting skills, early childhood development, literacy, etc. Connects parents with community resources to help them better support their child's health and early learning.

GOAL AREA	STRATEGY	STRATEGY DESCRIPTION
	Parent Education Community-Based Training	Provides classes on parenting, child development, and problem-solving skills. Strengthens families with young children by providing voluntary classes in community-based settings.
	Reach Out and Read	Trains pediatric practices to engage parents and young children in early literacy activities; provides books to pediatricians or their staff to distribute to families with young children. Expands children's access to reading by promoting child literacy as a part of pediatric primary care.
Health / Mental Health	Care Coordination/Medical Home	Provides children and their families with effective case management, and connects them to appropriate, coordinated health care. Improves children's health care and future development by ensuring they have a regular source of care. Provides health insurance enrollment assistance. Conducts developmental, hearing, and vision screenings.
	Oral Health	Provides oral health screenings and fluoride varnish in a variety of community-based settings and provides outreach to dentists to encourage service to children for a first dental visit by age one. Provides oral health education to parents, children and early childhood professionals. Decreases preventable oral health problems in young children.
	Child care Health Consultation	Provides qualified health professionals who assist child care providers in achieving high standards related to health and safety for the children in their care. Improves the health and safety of children in a variety of child care settings.
Evaluation	Statewide Evaluation	Statewide evaluation includes the studies and evaluation work which inform the FTF Board and the 31 Regional Partnership Councils. Examples are baseline Needs and Assets reports, specific focused studies, and statewide research and evaluation on the developing early childhood system.
Coordination	Service Coordination	Through coordination and collaboration efforts, improves and streamlines processes including applications, service qualifications, service delivery and follow-up for families with young children. Reduces confusion and duplication for service providers and families. Strengthens and improves the coordination of services and programs for children 5 and younger.

GOAL AREA	STRATEGY	STRATEGY DESCRIPTION
Community Outreach	Community Awareness	Uses a variety of community-based activities and materials to increase public awareness of the critical importance of early childhood development and health so that all Arizonans are actively engaged in supporting young kids in their communities.
	Media	Increases public awareness of the importance of early childhood development and health via a media campaign that draws viewers/listeners to the ReadyAZKids.com web site.
	Community Outreach	Provides grassroots support and engagement to increase parent and community awareness of the importance of early childhood development and health.

**Appendix D: Census 2010 Population and Households, by Zip Code**

ZIP CODE	LOCATION	TOTAL POPULATION (2010 CENSUS)	POPULATION (AGES 0-5)	TOTAL NUMBER OF HOUSEHOLDS	HOUSEHOLDS WITH ONE OR MORE CHILDREN (AGES 0-5)
<b>SOUTHERN HUB</b>					
TOTAL		93,010	6,811	33,430	4,860
86001	Flagstaff, Fort Valley, Kachina Village, Mountaineire	40,776	2,840	16,311	2,063
86004	Flagstaff, Doney Park	37,131	3,355	13,404	2,354
86011	Flagstaff (NAU)	6,362	0	9	0
86015	Bellemont	385	75	135	47
86016	Gray Mountain west	6	2	2	1
86017	Munds Park	667	28	325	21
86018	Parks	759	48	332	35
86020	Gray Mountain east	52	8	16	6
86024	Happy Jack	703	14	374	10
86038	Mormon Lake	77	1	43	1
86046	Williams, Valle	6,090	440	2,478	322
99999		2	0	1	0
<b>NORTHERN HUB</b>					
TOTAL		10,117	970	3,636	646
86022	Fredonia, Cane Beds, Moccasin, Kaibab	2,210	235	784	144
86036	Marble Canyon	241	2	145	2
86040	Page	7,638	733	2,699	500
86052	North Rim	28	0	8	0
<b>GRAND CANYON HUB</b>					
86023	Grand Canyon Village, Tusayan	2,627	151	1,034	109
<b>HAVASUPAI HUB</b>					
86435	Supai	481	64	105	38
<b>WINSLOW HUB</b>					
86047	Winslow	10,822	966	3,326	666



## Appendix E: Census 2010 Population by Zip Code

ZIP CODE	LOCATION	TOTAL POPULATION (2010 US CENSUS)	POPULATION WITHIN THE COCONINO REGION	PERCENT OF ZIP CODE IN THE COCONINO REGION	ZIP CODE SHARED WITH
<b>SOUTHERN HUB</b>					
86001	Flagstaff, Fort Valley, Kachina Village, Mountaineer	40,776	40,776	100%	
86004	Flagstaff, Doney Park	37,338	37,131	99.4%	Navajo Nation
86011	Flagstaff (NAU)	6,362	6,362	100%	
86015	Bellemont	385	385	100%	
86016	Gray Mountain west	62	6	9.7%	Navajo Nation
86017	Munds Park	667	667	100%	
86018	Parks	759	759	100%	
86020	Gray Mountain east	1,941	52	2.7%	Navajo Nation
86024	Happy Jack	703	703	100%	
86038	Mormon Lake	77	77	100%	
86046	Williams, Valle	6,090	6,090	100%	
other			2		
<b>NORTHERN HUB</b>					
86022	Fredonia, Cane Beds, Moccasin, Kaibab	2,210	2,210	100%	
86036	Marble Canyon	388	241	62.1%	Navajo Nation
86040	Page	10,283	7,638	74.3%	Navajo Nation
86052	North Rim	28	28	100%	
<b>GRAND CANYON HUB</b>					
86023	Grand Canyon Village, Tusayan	2,627	2,627	100%	
<b>HAVASUPAI HUB</b>					
86435	Supai	487	481	98.8%	Hualapai
<b>WINSLOW HUB</b>					
86047	Winslow	14,970	10,822	72.3%	Navajo Nation
<b>HOPI HUB</b>					
86030	Hotevilla-Bacavi				Navajo Nation
86033	Kayenta				Navajo Nation
86034	Keams Canyon				Navajo Nation
86035	Leupp				Navajo Nation
86039	Kykotsmobi Village				Navajo Nation
86042	Polacca				
86043	Second Mesa				
86045	Tuba City				Navajo Nation
86047	Star Mountain				Navajo Nation
86510	Piñon				Navajo Nation

## Appendix F: Child Care Locations in the Arizona Child Care Resource and Referral (CCR&R) Survey

BUSINESS NAME	ZIP	CITY	TYPE OF CARE	LICENSED CAPACITY
SOUTHERN HUB				
Acorn Preschool	86001	Flagstaff	Child care Center	45
Arin's Child Care Group Home	86001	Flagstaff	Family Child care	10
Bambini Montessori	86001	Flagstaff	Child care Center	33
Childtime #1460	86001	Flagstaff	Child care Center	116
Flagstaff Cooperative Preschool at Marshall	86001	Flagstaff	Child care Center	20
Flagstaff Cooperative Preschool at Murdock	86001	Flagstaff	Child care Center	25
Flagstaff Junior Academy Children's House	86001	Flagstaff	Child care Center	96
Flagstaff Unified DeMiguel FACTS Child care Program	86001	Flagstaff	Child care Center	145
Flagstaff Unified Eagles Crest Child Enrichment Center	86001	Flagstaff	Child care Center	59
Flagstaff Unified Kinsey FACTS Child Care Program	86001	Flagstaff	Child care Center	150
Flagstaff Unified Knoles FACTS Child Care Program	86001	Flagstaff	Child care Center	150
Flagstaff Unified Marshal FACTS Child Care Program	86001	Flagstaff	Child care Center	117
Flagstaff Unified Sechrist FACTS Child Care Program	86001	Flagstaff	Child care Center	150
Gartendale Group Home	86001	Flagstaff	Family Child care	10
Laurie's Ponderosa Trails Family Child Care	86001	Flagstaff	Family Child care	4
Montessori School Flagstaff West	86001	Flagstaff	Child care Center	62
Montessori School of Flagstaff	86001	Flagstaff	Child care Center	59
Mount Calvary Lutheran Preschool	86001	Flagstaff	Child care Center	45
New Beginnings Child Development Center	86001	Flagstaff	Child care Center	59
Pine Forest School	86001	Flagstaff	Child care Center	49
Rockhouse Playschool	86001	Flagstaff	Child care Center	99
San Francisco de Asis Catholic School	86001	Flagstaff	Child care Center	45
YMCA Flagstaff at Turquoise / Y Kidz Preschool	86001	Flagstaff	Child Care Center	50
YMCA Flagstaff St. Marys/Saint Francisco de Asis School	86001	Flagstaff	Child Care Center	59
Abundant Life Preschool	86004	Flagstaff	Childcare Center	81
Alpine Academy Preschool	86004	Flagstaff	Child Care Center	33
Apple Tree Day Care	86004	Flagstaff	Family Child Care	4
Bybee's House Family Child Care	86004	Flagstaff	Family Child Care	4
Flagstaff Christian Preschool	86004	Flagstaff	Child Care Center	40
Flagstaff Cooperative Preschool	86004	Flagstaff	Child Care Center	20
Flagstaff Unified Cromer FACTS Child Care Program	86004	Flagstaff	Child Care Center	185
Flagstaff Unified Killip FACTS Child Care Program	86004	Flagstaff	Child Care Center	150
Flagstaff Unified Little Ropers Center	86004	Flagstaff	Child Care Center	52
Flagstaff Unified Puente de Hozho FACTS	86004	Flagstaff	Child Care Center	75
Flagstaff Unified Thomas FACTS Child Care Program	86004	Flagstaff	Child Care Center	75
Foresight Learning Center	86004	Flagstaff	Child Care Center	49
Head, Heart, and Hands Preschool	86004	Flagstaff	Child Care Center	40
Love N Care Daycare & Preschool	86004	Flagstaff	Family Child Care	4
Montessori Sunnyside	86004	Flagstaff	Child Care Center	105
Peace Lutheran Preschool	86004	Flagstaff	Child Care Center	117
Pinecone Preschool/Child Care	86004	Flagstaff	Child Care Center	49
Tammy's In-Home Care	86004	Flagstaff	Nanny Individual	4

BUSINESS NAME	ZIP	CITY	TYPE OF CARE	LICENSED CAPACITY
The Ark Early Childhood Learning Center	86004	Flagstaff	Child Care Center	83
Maine Consolidated School District	86018	Parks	Child Care Center	22
April's Child Care Group Home	86046	Williams	Family Child Care	10
Ayala Family Child Care	86046	Williams	Family Child Care	4
Becky's Family Child Care	86046	Williams	Family Child Care	2
Kelly's Kiddy Farm Family Child Care	86046	Williams	Family Child Care	4
Tracy's Family Child Care	86046	Williams	Family Child Care	4
WINSLOW HUB				
Disability Preschool	86047	Winslow	Child Care Center	25
Josie's Family Child Care	86047	Winslow	Family Child Care	4
Kathie's Quality Family Child Care	86047	Winslow	Family Child Care	4
Leapin' Lizards Learnin' Center	86047	Winslow	Child Care Center	89
Mary's Little Lambs	86047	Winslow	Child Care Center	26
Melissa's Family Child Care Group Home	86047	Winslow	Family Child Care	10
NACOG Head Start: Winslow	86047	Winslow	Child Care Center	130
Pooh's Playhouse	86047	Winslow	Child Care Center	50
Thomas Family Child Care	86047	Winslow	Family Child Care	4
Winslow Early Head Start	86047	Winslow	Child Care Center	8
World of Wonder Preschool	86047	Winslow	Child Care Center	49
NORTHERN HUB				
Kaibab Early Learning Center (Tribal)	86022	Fredonia	Child Care Center	45
Desert View Preschool	86040	Page	Child Care Center	125
Immaculate Heart Preschool	86040	Page	Child Care Center	39
Shepherd Preschool	86040	Page	Child Care Center	48
GRAND CANYON HUB				
Kaibab Learning Center	86023	Grand Canyon	Child Care Center	159